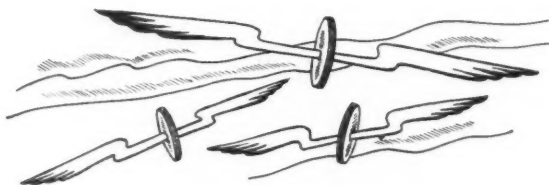


American FOREST



MAY 1931

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DAY in and day out you take wings by talking over your telephone . . . with friends . . . the grocer . . . the doctor . . . a relative hundreds of miles away . . . and every month you get a bill for this service.

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"The year is at the Spring."

AMERICAN FORESTS

OID BUTLER, Editor

L. M. CROMELIN and ERLE KAUFFMAN, Assistant Editors

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ADEQUATE FOREST FIRE PROTECTION by federal, state, and other agencies, individually and in cooperation; the REFORESTATION OF DENUDED LANDS, chiefly valuable for timber production or the protection of stream-flow; more extensive PLANTING OF TREES by individuals, companies, municipalities, states, and the federal government; the ELIMINATION OF WASTE in the manufacture and consumption of lumber and forest products; the advancement of SOUND REMEDIAL FOREST LEGISLATION.

The ESTABLISHMENT OF NATIONAL AND STATE FORESTS where local and national interests show them to be desirable; the CONSERVATIVE MANAGEMENT OF PUBLIC AND PRIVATE FORESTS so that they may best serve the permanent needs of our citizens; the development of COMMUNITY FORESTS.

FOREST RECREATION as a growing need in the social development of the nation; the PROTECTION OF FISH AND GAME and other forms of wild life, under sound game laws; the ESTABLISHMENT OF FEDERAL AND STATE GAME PRESERVES and public shooting grounds; STATE AND NATIONAL PARKS and monuments where needed, to protect and perpetuate forest areas and objects of outstanding value; the conservation of America's WILD FLORA and FAUNA.

The EDUCATION OF THE PUBLIC, especially school children, in respect to our forests and our forest needs; a more aggressive policy of RESEARCH AND EDUCATIONAL EXTENSION in the science of forest production, management, and utilization, by the nation, individual states, and agricultural colleges; reforms in present methods of FOREST TAXATION, to the end that timber may be fairly taxed and the growing of timber crops increased.

Trees Are Dormant in the North

All of these evergreens are growing in New England, where growth seldom starts until the first of June. They are still dormant, and can be moved safely until late May. The best time for planting depends on the climate where the trees are grown, not where they are to be planted.



PINES

	(100)	(1000)
Red (Norway)		
14 to 22 in. XX	\$16.00	\$125.00
Austrian		
10 to 18 in. X	12.00	75.00
Riga Variety Scotch		
12 to 18 in. X	9.00	70.00
18 to 24 in. X	12.00	90.00
Mugho		
12 to 18 in. XXX (Balled and Burlapped)	100.00	
HEMLOCK (Tsuga canadensis)		
8 to 10 in. XX	30.00	250.00
10 to 14 in. XXX bushy	45.00	400.00

FIRS

	(100)	(1000)
Balsam		
4 to 8 in. X	8.00	60.00
6 to 12 in. X	10.00	80.00
Douglas		
6 to 12 in. X	14.00	70.00
10 to 15 in. XXX bushy	35.00	295.00
Concolor (Silver)		
5 to 9 in. X (special)		70.00
8 to 10 in. XX bushy	25.00	200.00
10 to 12 in. XX bushy	30.00	250.00
12 to 15 in. XXX bushy	35.00	300.00

YOUNG ARISTOCRATS



Grafted trees of rare and unusual charm are usually expensive. For the benefit of those who appreciate beauty, but also appreciate economy, we offer a special size of young aristocrats: Grafts that have spent one year in the open field, hardening up. In a few years they will quadruple in value. They require no extra care, being now thoroughly hardy. Add fifteen cents a tree for packing and transportation. Larger quantities quoted on request.

Japanese Red Maple

Unless grafted plants of this are used, the color is not entirely red, and it lasts only a short time in early summer. These grafted plants will remain red nearly all summer long. A beautiful small tree.

6 to 9 inches, one year, 5 for \$7.50.

Red Flowering Dogwood

Brilliant color, added to the attractions of our beautiful native white Dogwood, make this tree irresistible.

10 inches, one year, 5 for \$7.00.

Purple-leaved Beech

We offer these splendid trees in limited quantity. They are the "Rivers" variety, although some Copper Beech as well as weeping and cut-leaved Beech are available at the same price. The rich color of the leaves is retained practically the entire summer.

10 inches, one year, 5 for \$7.50.

Koster's Blue Spruce

A vast improvement over Colorado Blue Spruce, since the color is uniformly blue and more striking.

Young trees, 6 to 8 ins., one year, 5 for \$10.

Larger size, 12 to 18 ins., three yrs., 5 for \$22.50.

Moorheim's Blue Spruce

By many claimed to be an improvement even over Koster's. The color very brilliant, and is retained well through the winter.

4 to 6 inches, one year, 5 for \$8.50.

A WONDERFUL BARGAIN IN NORWAY (RED) PINE Twice Transplanted

These trees are northern New England grown. They have been twice transplanted and as a result are furnished with bushy roots and bushy tops. They will withstand hard conditions much better than seedling or once transplanted stock—and are much better trees in every way. Yet the price is not exorbitant—very little higher than ordinary reforestation material. We offer

Nice bushy little trees

\$16 per 100

\$125 per 1000

(300 or more at this rate)

14 to 22 inches TWICE transplanted

Not a great many are left. We suggest sending in orders direct from this advertisement. The stock is in the North, absolutely dormant, and we can ship up to May 15th.

KELSEY NURSERY SERVICE

Fifty Church Street

New York City



Photograph by Olive Blandford

BIRCH VOICES

I never hear the whisper of a slim birch tree
Dressed in a summer gown of white and green
But what I wonder if the thought may be
A bit of wisdom sent eternally
From force that is not heard nor seen
Nor known—except as Deity.

—John C. Frohlicher.

AMERICAN FORESTS

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The New Public Domain

Old Domain Lands, Stripped of Their Natural Wealth, Are Coming Home to Roost in the Shelter of Public Ownership

By RAPHAEL ZON

AS UNCLE SAM is wrestling with what to do with the old Public Domain of the West, a new problem of public ownership of land raises its head both in the East and in the West. The two problems are not unrelated. The land that is now reverting to public ownership for non-payment of taxes is the same old Public Domain which the Government, just a few short decades ago, parceled out as land grants to the states, corporations and individuals under various public-land laws. The states allowed most of the land they received from the Federal Government to pass also into private hands. These lands, stripped of their valuable natural wealth, are now being abandoned by their owners by millions of acres and are reverting to public ownership.

It is true that the new Public Domain is no longer the direct concern of the Federal Government. The abandoned lands come back to the township, county or state, depending upon the prevailing state laws governing the reversion of tax-delinquent lands. In recent years, this drift of abandoned cutover and farm land into public ownership has assumed such large proportions as to become a national problem, touching the economic life of many communities.

The physical and historic contrast between the old and the new Public Domain is undoubtedly

great but the social and economic aspects of the two are not unlike. The old unreserved Public Domain lies almost exclusively in the arid and semiarid regions of the Western States. The land now limping back into public ownership lies mostly in the humid region of the Eastern States. The old western public lands are suited for the most part only for grazing. The new Public Domain once supported magnificent forests. It is still admirably suited to timber production and in spots even to one or another form of agriculture. Legally the western public land is owned by the Government; actually it is a "no man's land," neglected by its owner and abused by its users. The land now in the process of reversion to public ownership is also "no man's land." The local governments by various devices resist the transfer of the title to the public. It is not welcomed either by the state or county and is poorly protected against fire and trespass.

It is not only "no man's land" in a physical sense but often in a legal sense as well. This new Public Domain is also unreserved and unappropriated land. Like an abandoned child, it is left on the steps of the county courthouses or of the state capitols to be disposed of in the best way possible.

Among the plans suggested for the disposal of the remaining unreserved Public Do-



Abandoned land in the Lake States upon which is written the drama of an unsuccessful struggle to create a farm home. Such lands as this are responsible for the creation of the new Public-Domain problem.

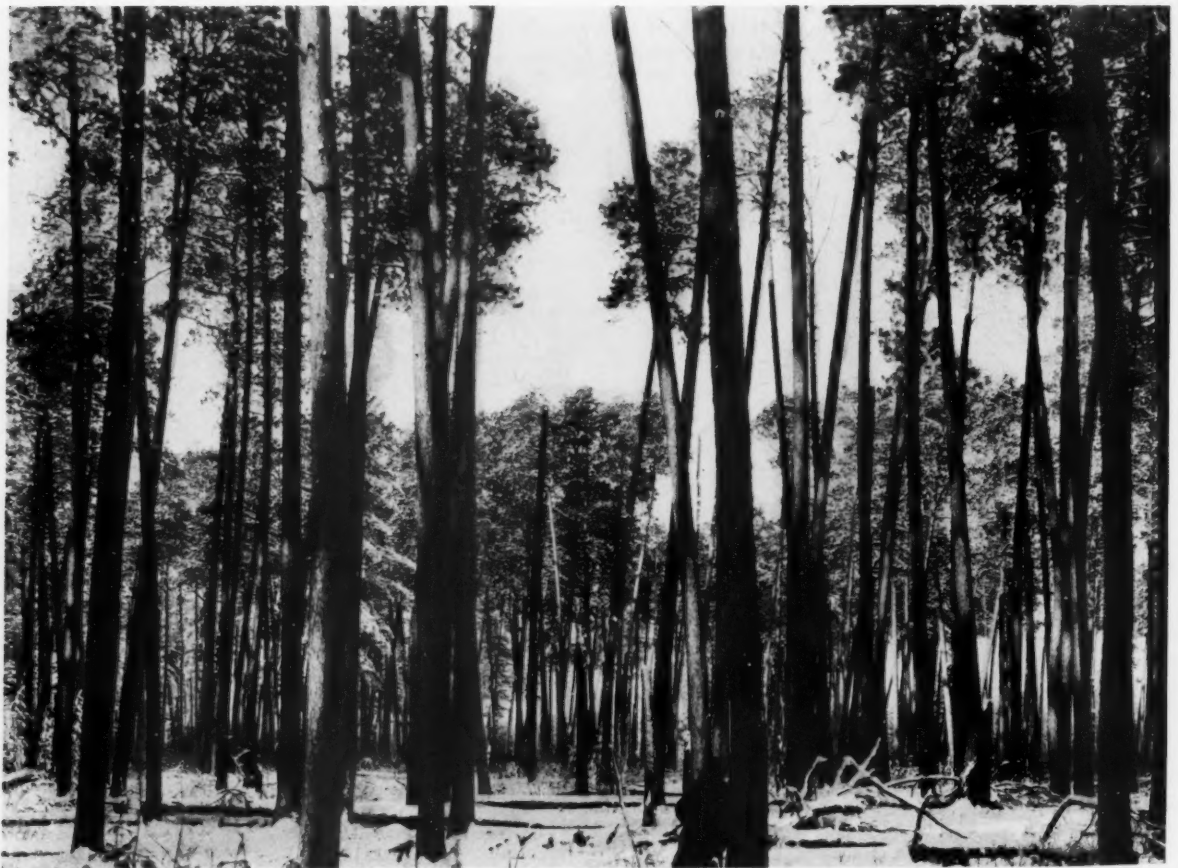
main of the West is the transference of the surface rights to the states. The new Public Domain is already either in complete ownership of the states, counties and townships or is in the process of becoming their public lands. The unreserved Public Domain of the West is remote from centers of population; the new Public Domain of the East is close to our greatest centers of population and is found within 100 or 200 miles of such cities as New York, Chicago, Detroit, Boston, Minneapolis and others. While solid blocks to the extent of 20,000 and 30,000 acres of the new Public Domain are not infrequent, the bulk of it is badly broken up and scattered in comparatively small units. While the area of the western Public Domain is gradually diminishing, the area of the land that now reverts to public ownership in the East is growing by leaps and bounds.

There still remains some 180,000,000 acres of the old unreserved Public Domain. No one knows definitely what the aggregate area of the new Public Domain is. Because of the unwillingness of the local governments to take it off the tax roll, this land remains for years without a legal status. The transfer of the title is surrounded by many technicalities and is not always clear. The actual acreage definitely taken over by the states and counties is only a small fraction of the huge acreage which is in various stages from tax delinquency to complete abandonment. In the Lake States, for instance, while not over 2,000,000 acres have definitely reverted to the counties and states, there are known to be 18,000,000 acres more, or nearly thirty-one per cent of the entire forested area of the states of Michigan, Wisconsin and Minnesota, that are tax-delinquent and a large part virtually abandoned by their

owners. As a mere conjecture, the acreage of abandoned cut-over and farm land which has already reverted or is in the process of reversion to public ownership is probably over one-half of the area of the remaining unappropriated Public Domain, or about 100,000,000 acres. In addition, over 12,000,000 acres of state, county and township Public Domain have been definitely dedicated to or appropriated for definite purposes. Some 6,557,000 acres are dedicated to state forests; 436,000 acres to state parks; 4,418,000 acres are state forest land but as yet not organized into state forests; 727,000 acres are in municipal and county forests and parks.

The reversion is probably more advanced in the Lake States than in any other region but the same economic process is going on at an accelerated rate throughout the entire country, and the end is not yet in sight. It is hard to tell what the ultimate acreage may be. Judging by the present trends, it may be confidently predicted that, at least in the Lake States, within another decade fifty per cent of the entire forest land will be in one or another form of public ownership.

The old Public Domain of the West and the new Public Domain of the East and West is land of low value. The land which originally passed out of the hands of the Government was covered either with virgin timber of great value or was land capable, with proper handling, of growing agricultural crops. This land now comes back into public ownership, stripped of its valuable timber, ravished by repeated forest fires, depleted of its fertility and often disfigured by gullies due to erosion. It is like a "poor relation," who once was rich but squandered his wealth and now, when "broke,"



The original Public Domain. Millions of acres in the Lake States, rich in timber, passed from the Government and states under various public-land laws into private ownership and private exploitation.



The same land, stripped of its natural wealth and ravished by fire, is now abandoned by its owners and limps back into public ownership through nonpayment of taxes to form a new Public Domain.

comes for support to his relatives who are themselves none too well off. No wonder the relatives look askance at the newcomer.

The birth of this new Public Domain is the logical and inevitable result of our past land policies. The chickens are simply coming home to roost. It points out a lesson and also a warning to those who are still concerned with the disposal of public lands, Federal or state. What are the causes of this new economic process and what is the possible future use for this new Public Domain?

The main reservoir from which this new Public Domain is being fed is the millions of acres of land originally forested. The private exploitation of the timber resulted in the destruction of this valuable resource over a large area, without replacing it by new timber growth or diverting it into permanent agriculture or other profitable use. The pioneering psychology of the early lumberman, the belief that the forests were inexhaustible, the prevailing notion that all the cutover land will eventually be needed for agricultural settlement, together with uncontrolled forest fires that swept the cutover land year after year, left in their wake millions upon millions of acres of devastated land and millions upon millions of acres covered only with inferior forest growth. The inability to dispose of the cutovers to settlers and the doubtful profitability of using them for timber growing, in the face of mounting taxes, brought about a wholesale abandonment of this land by its owners.

Another source from which this new Public Domain arises is the abandoned farm land. The abandonment of farms has become especially acute during the last ten years. The

ideas, prevalent during the end of the nineteenth and the early twentieth century, that the United States is destined to be largely an agricultural country and that Uncle Sam is rich enough to provide every one of us with a farm, the ease and cheapness with which agricultural land could be acquired, the policy of many states in encouraging agricultural settlement, the high-pressure salesmanship of many land-colonizing companies, all led to overexpansion of agriculture, even on poor soils. Then came the agricultural slump after the war, with its inevitable shrinkage of farm acreage. Agriculture, not only on the poor submarginal land but even on the better soils, became a precarious occupation.

Many economic and social factors contribute to the shrinkage of farm acreage. The mechanization of farms through the introduction of power machinery has made farming more intensive and reduced the area needed for production of foodstuffs. Automobiles, auto trucks and tractors are displacing more and more the work animals on the farm. The acreage devoted to growing feed for these animals is, therefore, reduced. The consumption of rayon and silk is affecting the cotton industry. With the shift of population from country to city and to sedentary occupation, there was a shift from products requiring a large acreage of land to those requiring a lesser acreage. The decline in the birth rate, together with restricted immigration, slowed down the growth of population and the demand for farm products.

Another factor accelerating farm abandonment is the mounting taxes on real property. When lumbering was still active and the agricultural future looked most bright, townships were organized and self-governing units established,

school and road bonds were sold, large drainage projects were initiated, and other financial obligations were incurred. With the passing of the lumber industry and the consequent curtailment of community wealth, the tax burden has become extremely heavy. No wonder, then, that in some counties in the cutover regions tax delinquency exceeds fifty per cent of the assessed value. The larger the acreage of tax-delinquent land—and it is growing at a rapid rate—the heavier the share of the tax burden which the remaining land must assume. Tax delinquency, once started, sucks more and more of the remaining nondelinquent land into its vortex.

The result of all this is the abandonment of farm land and the exodus of farmers to the cities. During the five-year period between 1920 and 1925, over 2,000,000 people left the farms, and probably 1,500,000 more since 1925, and 46,000,000 acres of farm land went out of use. These economic trends are not confined to any one region. They, of course, are the most prevalent in the eastern longer-settled states but are not lacking in the South and even on the Pacific Coast. In Florida the acreage of tax-delinquent land in 1928 was reported to be close to six million acres; in Idaho, in 1927, close to one million acres. In twelve counties in Oregon, where logging has been going on for some time, close to 195,000 acres have gone back to the counties and virtually one million acres in the cutover counties have been delinquent for over three years and are legally ready for county foreclosure. In Washington the tax-delinquent land is close to one million acres. In New England, where to date over seven million acres have gone out of farm use, the abandonment is still going on at the rate of over 200,000 acres a year. In each of our two richest states in the East, New York and Pennsylvania, farm land was abandoned at the rate of some 270,000 acres a year during the period between 1920 and 1925. The country is littered with abandoned and decaying homestead shacks which tell mute and tragic tales of blasted hopes of thousands of settlers. The anticipated pressure of population upon land has now become a pressure of land upon population, and the states and counties have now become decidedly "land poor."

The social effect of this economic transformation in ownership of vast areas of land is far reaching. It creates new

responsibilities for the states and counties. If the land that comes back into public ownership were valuable timber land or fertile agricultural land in demand by settlers, it would immediately become a source of taxable wealth in the state—and there would be no problem—but the land that reverts back to public ownership is land that nobody wants, land that needs to be brought back into productivity at a considerable outlay of

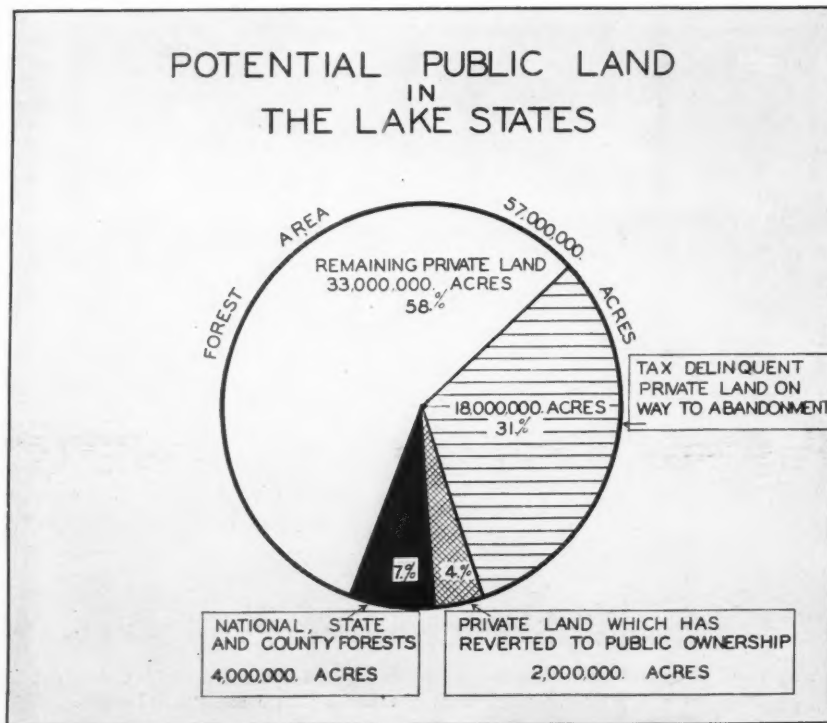
hard cash and without tangible returns for a long time.

The changed conditions find many of the states unprepared to deal with the problem. What to do with this land, how to turn it into profitable use is one of the pressing problems confronting many of our local units of government. The states and counties attempt to meet this problem in various ways. Efforts are made to keep the land on the tax rolls by every possible means. Extreme leniency is granted delinquent taxpayers and

every opportunity is given them to retain the property. Lands listed for nonpayment of taxes are offered again and again for sale at bargain-counter rates.

Attempts are made to reduce the expenditures of the local government. One of the plans proposed to that end is dividing the county into zones. In some zones settlement is to be excluded and even the settlers already residing there are to be removed; no roads, schools or other improvements are to be built. In other zones, land settlement is to be encouraged and schools and roads are to be provided. So far only weak attempts—and those on a voluntary basis—have been made to move settlers from one zone to another. There is a question whether the counties have legal authority for zoning and distributing of settlers by zones. Such zoning, if done intelligently, would have the advantage of reducing the cost of the local government. Consolidation of townships and even of counties, of which much discussion is heard, but little done, is another step in this same direction.

Attempts have been made to change the system of taxing cutover lands as a means of encouraging private owners to hold the land. These forest tax laws are in the nature of deferred taxation. The owner pays a nominal tax while the timber is maturing and a yield tax when it is harvested. Some states contribute an amount similar to the nominal tax paid by the owner with the hope of recouping themselves from the yield tax. This contribution by the (Continuing on page 280)



Land abandonment is the chief source of the new Public Domain. This process is probably more advanced in the Lake States than in any other region of the East. The same process is going on at an accelerating rate throughout the entire originally forested country.

HOOTING OF THE BLUE GROUSE

A Spring Love Song of the Big Timber

By HAMILTON M. LAING

ONE of the strangest of bird calls in North American woods is the spring love song of the blue grouse of the Pacific Coast—for its hooting is as truly a love song as is the most euphonious outburst of a warbling bird. This muffled hooting in the coniferous woods of the West has been the means of mystifying many an out-of-doors rambler. But few have seen it uttered.

The mating calls and performance of the various species of North American grouse tell one of the most interesting love stories of the wild. The strutting and strange melancholy mooring of the pinnated grouse, the dancing and capering of the sharp-tailed grouse, the strutting of the sage cock, the drumming wing-thunder of the common ruffed grouse—all give an insight into nature's different methods of achieving the same end. The story of the blue grouse is not so well known, as these birds inhabit the wilderness of the western mountains and the dense coniferous woods of the low coastal region.

Because of his love song, the sooty grouse, or dark form of this bird (*Dendragapus obscurus fuliginosus*), is known over a good deal of his range in Oregon, Washington and British Columbia as the "hooter." The ruffed grouse is said to "drum" because he beats his wings in producing his strange

thumping tattoo, but the sooty has an owl-like note that is produced vocally. In spring his call comes booming from the firs. The early pioneers of the West turned the song to good purpose, soon learning that it came from a fine big cock of the woods weighing well over two pounds. Often the grouse paid with his life for his song.

But this was not always easy. The call has the magic that belongs to the hoot of the horned owl, the drum-beat of the



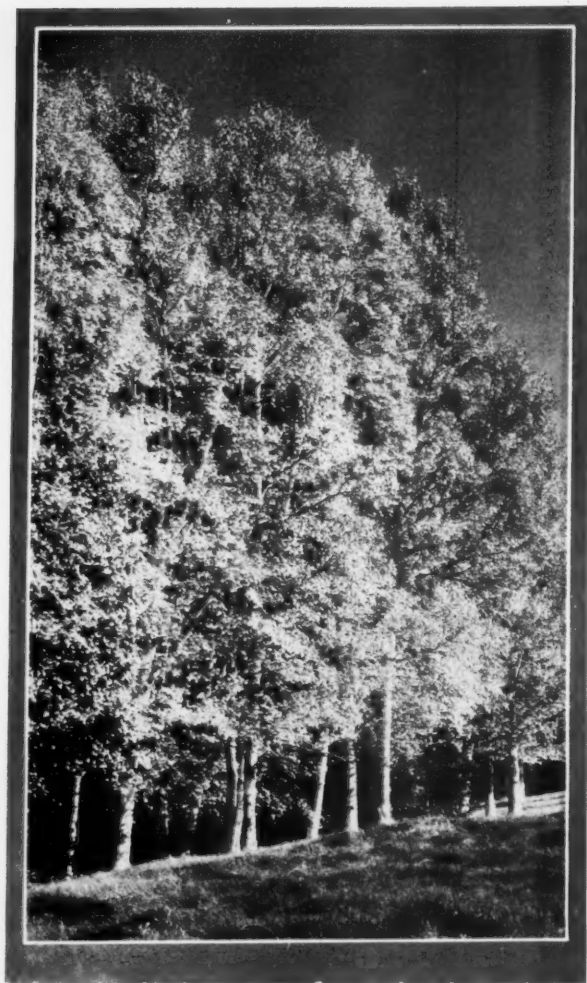
His lady always comes to her lord and master in the quiet of the evening.



Thrilled with joy and anticipation, his feathers inflated, the cock is all ready to start his hooting.

ruffed grouse wing, and the coo of the mourning dove—sounds that defy distance, but which are never loud or jarring even at close range. The author of the hooting is never easy to locate. Usually he is perched high in a huge fir, sitting close to the trunk where he is quite invisible from below.

It is perhaps natural that this grouse should give his mating call in the big trees. He is a bird of the deep woods. Though he spends his summer in the more open country at low levels, in late autumn and winter he lives almost entirely above the ground. Contrary to what might be expected, he goes to the colder, timbered hills in winter to spend his time far above the earth, subsisting (*Continuing on page 318*)



Standing in the glory of their gowns of green and gold.

THE birches of New England are the virgins of our woodland, more feminine than any other tree. Their bodies are slender; their manner is ever gracious. In the summer they are exquisitely clothed in delicate green gowns; in the winter their lovely bodies are like ageless Grecian figures, beautifying pastures and hillsides.

The birches are the gentle spirits of the woodland family. Proud and pure of heart, they give their friendship freely to him who loves nature. Theirs is not the utter resignation of the willow, nor the haughty pride of the elm. They are the lovely maidens of the woods whose hearts are just awakening to the glory of life.

A delightful Indian legend accounts for the white, gray, yellow and black families of birches. Long ago, when the Indians roamed the hills and valleys of New England and paddled their canoes on the rapid rivers, there were no birch trees. Then the white man came out of the sea. At first there was

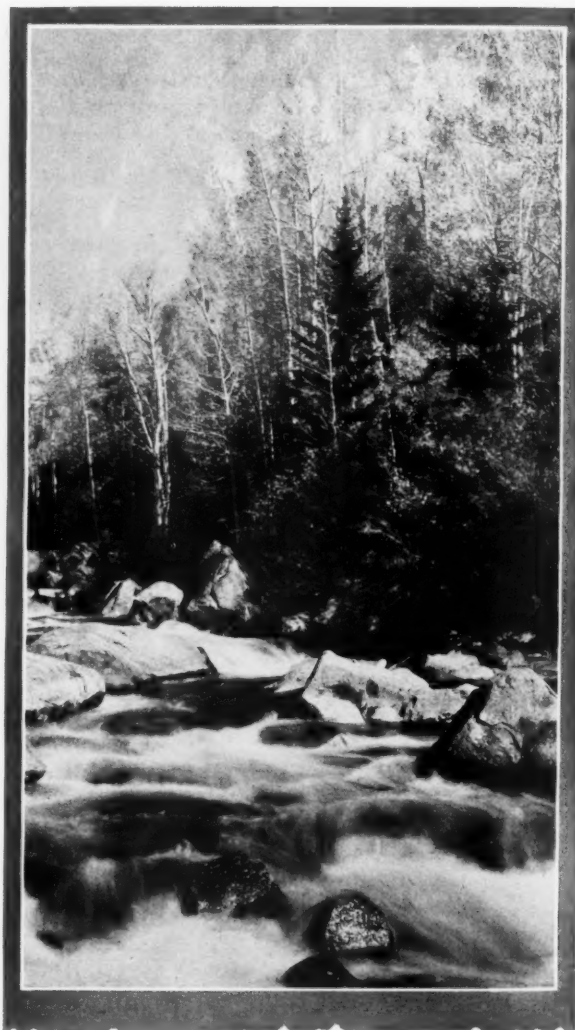
PURITAN MAIDENS

THE BIRCHES OF NEW ENGLAND

By HAYDN SANBORN PEARSON



Photographs by James A. Davey



Swaying in delicate beauty to the soft winds of Spring.

friendship in the heart of the Indian for his brother, but this soon changed. The wise men of the tribes realized that the young braves loved the vices of the white men, but not their virtues.

On the shores of the "Lake of the Smiling Spirit," called Winnepesaukee, dwelt many Indians, and there came one spring a family of white men. A beautiful friendship developed between Deer Eyes, the lovely daughter of the chief, and a daughter of one of the white settlers. They were everywhere together, and each taught the other much lore. They roamed the woods in search of flowers and herbs, and paddled together on the lake.

The Great Spirit watched the friendship develop and smiled, for it was good that there should be friendship. So the Great Spirit said: "I will make a sign to my people that this friendship is good and that they are to dwell in peace. Two trees will I give the earth, one white and one yellow. They shall be birches, not like the great birch from which the red man makes his canoes, but small, slender trees, like Deer Eyes and the daughter of the pale face. One shall be white and the other yellow, and they shall ever grow together in peace."



Proud and pure of heart—graceful and reserved, to the lover of nature the birches are the virgins of our woodlands.

But time passed and the Indians were pushed away from their hunting grounds. The Great Spirit looked down and was sad. "My people have fallen on evil days. I will raise up another tree that earth may always have a reminder of the great, though losing struggle my people are waging. I will make a gray birch, because it is a gloomy time for the red men."

Still the decades passed and the gray twilight changed inevitably to black night. Beautiful New England was to be no more the home of happy tribes. The white man claimed it for his own.

The Great Spirit was sad. His kingdom on earth was no more. "It is the great night come to my people. I will make one more tree, sad and black like the evil time which has come to us."

The Great Spirit made the black birch to dwell with the others—the white and yellow and gray. Thus the birches of New England sing the saga of the red men from the time the white men came from out the sea.

Magical Bermuda

By F. W. KELSEY

THOSE who for the first time come to Bermuda find here a wealth of floral beauty as remarkable in variety as it is unsurpassed in the gorgeous colorings of flower and foliage. It seems strange that in less than forty-eight hours by steamer, one is transferred from the rigid winter climate of the north and west to this land of perpetual sunshine and semi-tropical conditions. For here the lawns and turf remain continuously green throughout the year; sweet peas have their most abundant blooming season from November to June and great palms remain in full development throughout the year.

What perhaps most impresses the average stranger here is some of the more striking examples of really tropical growth, which in perfection of form and normal growth can hardly be surpassed in the tropics. Huge Indian rubber trees, with sixty-foot spread of branches, the beautiful Locai with its long pendant segregated dark green foliage and form similar to the Norway spruce, and *Poinciana regina* with a three-foot diameter of trunk and nearly seventy-foot breadth of branches, are some of the noticeable specimens of tree growth. It is, however, in the smaller types, as in the shrubs and flowering plants where the most surprising effects are found. The upright Hibiscus with its beautiful single flower is found here in eighteen varieties. Oleanders are of large size and a mass of charming color in bloom. Another wonderfully effective shrub is the Bougainvillea, which attains a height of fifteen feet or more.

Perhaps next to the Bougainvillea in beauty is the showy, flowered poinsettia, also called the Burning Bush. Accustomed as we are at home to see this plant with its large bril-

liant scarlet flowers, carefully grown under glass, as small plants, it is indeed interesting to see the same variety here six to eight feet in height growing and blooming in the open as though in its native habitat. Of the more common attractive shrubs to be seen is the *Accalethia*, or "Match me if you can"—thus named in common parlance from the dissimilarity of the foliage—the thick leathery-like leaves, bordered with yellow, no two of which have ever been discovered alike. The commonly known Pigeon berry is also to be seen in most ornamental grounds with landscape embellishment. This shrub is of a smaller type, usually three to six feet in height. The feature of its beauty is the long leafless racemes of pendulous, waxlike, bright yellow berries. The Caucasian Laurel attains large size and is grown mainly for foliage



A giant rubber tree in Bermuda, showing its great confusion of roots.

effects. The night blooming *Cereus* is not infrequently seen here as a covering for stone walls, where the growth forms a solid mass of its peculiar stem and cactuslike spines. The red and yellow *Alternanthera* are quite common as formal garden borders, but instead of being replanted every season they continue on and on for years, requiring only the usual pruning. But of all the showy tree or plant growth in Bermuda nothing can surpass the varied sizes, forms, and beauty of the *Crotons*. A strictly tropical plant, it flourishes here in great perfection.

Speaking of Bermuda, the Easter Lily is practically synonymous with the name. A few weeks before Easter the fields or "farms" of these bulbs are but a few inches above the ground. But at that season, however, they become a solid mass—acres of these beautiful white flowers, now generally recognized as the flower symbol of Easter.

Leaves

All winter long my heart is sad and sore,
For broken boughs and branches torn it grieves.
Now spring is come and I rejoice once more—
The miracle of leaves.

—Bessie Croffut.



The beautiful view of Mount Pisgah and the distant outlines of the Blue Ridge which first intrigued the interest of George Vanderbilt back in the early eighties.

Pioneers in Forestry at Biltmore

By JOSEPHINE LAXTON

YOUTH and beginnings hold a charm which no glory of maturity nor pride of achievement can dim. The inauguration of forestry at Biltmore, North Carolina, the first large-scale experiment of its kind in America, is interesting not only on its own account but because of its association with the early careers of men destined to become leaders in the movement for scientific forestry and conservation.

In the late eighties young George Vanderbilt came several times as a tourist to Asheville. He stood on the open verandas of the old Battery Park Hotel and fed his beauty-loving nature from the wooded slopes of low-lying, rounded hills to the distant outlines of the Blue Ridge Mountains. Lured, so the story goes, by a lone pine on a hill near the confluence of the French Broad and Swannanoa Rivers, he began explorations of the surrounding country on horseback.

He found a number of small farms and woodlands from which all of the best timber had been cut for sawlogs, fencing and fuel. Cattle browsed the young growth, and burned stumps and scarred, decaying trees showed the inroads of fire. These mountain farms afforded a scanty living

and the owners were forced to use every resource without reserve.

Vanderbilt, with his vivid imagination, sensed the latent beauty and real value of these lands and decided to buy them all and convert them into an estate, having a manor house as its center and a village with a church, school and industries. Acting on this inspiration he made his first purchase in 1889. Ultimately he owned 200 square acres of mountain, valley and stream.

Roads and trails were built through the estate and forestry on a commercial basis was started with the purpose of building up a financially self-supporting forest property that would, at the same time, be an object of unusual interest and attraction. The richness of the vegetation lent itself well to this purpose. Under the widely varying conditions of elevation, soil and temperature, tree species were found indigenous to North America from Nova Scotia to Georgia.

The mansion house, the design for which was inspired by the famous French Château des Blois, built during the time of Francis I and Diane de Poitiers, was placed on an elevated plateau. From it could be seen



George W. Vanderbilt.
From a photograph made in 1910.

Pisgah and the Rat, rising above the snowy whiteness of morning mists or submerged in the crimson and golden glory of sunset. To the south and west the French Broad swept through grassy meadows, its banks outlined by the delicate tracery of river birch. Although fundamentally symmetrical in contour the land immediately surrounding the site chosen for the château had been burned over for grazing and defaced by unchecked erosion.

To realize his dream for the development of the natural beauty of his domain, Mr. Vanderbilt engaged Frederick Law Olmsted, designer of Central Park in New York and of the World's Fair Grounds at Chicago. Mr. Olmsted at once became Mr. Vanderbilt's advisor-in-chief and together they formulated a plan for the estate which would combine the charm of French landscape architecture with the wider range and sweep of this distinctly American setting. As the man best fitted to formulate and carry out a forest management plan, workable under the complex and difficult conditions present on the estate, he chose Gifford Pinchot.

A year after Mr. Vanderbilt began the acquisition of the 300 or more holdings which made up his domain the first forest planting was done by an Illinois nursery firm, Robert Douglas and Son, whose agreement with Mr. Vanderbilt called for the "establishment of a plantation of trees on an

area of not less than 300 acres, not less than 1,200 trees on each acre, not less than seventy-five per cent to be white pine."

These two years were momentous also in the life of young Pinchot. In 1889, while matriculated at Yale University, his interest in forestry caused him to be made a member of the

American Forestry Congress. The following year, acting on the advice of Dr. B. E. Fernow, the German forester who was then guiding the uncertain footsteps of the Government's landless Division of Forestry, he departed for Europe. After a conference with Sir Dietrich Brandis, he entered the Forest Academy at Nancy, France, and became the first American student of forestry.

During the summer of 1890, while Dr. Fernow, intent on obtaining the enactment of constructive forestry legislation, was required by Congress to divert part of his energies to an absurd series of rain-making experiments, Pinchot, with his alert mind

and inexhaustible energy, was strengthening his scientific background and familiarizing himself with foreign methods of forestry practice. The next year he returned to America and, at Mr. Olmsted's suggestion, Mr. Vanderbilt began negotiations with him. During a visit to Mr. Olmsted at his home in Brookline he discussed the work and decided to accept the position at Biltmore.

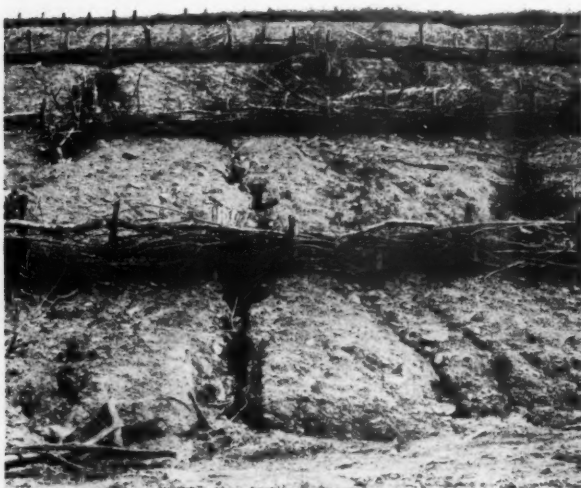


Gifford Pinchot



Carl Alwin Schenck

Early photographs of the two men who directed and builded the destinies of the great forest estate at Biltmore—the first large-scale experiment of its kind in America.



Land prepared for forest planting. Brush and wattles were used to check gullying.



Dr. Schenck took over the management in 1896 and this is one of his first white-pine plantations.

On February 3, 1892, he wrote to Mr. Olmsted: "Today has been the first one of my official life, if I may call it such, and a large part of it has been occupied with preparations for the exhibit of the Biltmore trees which we hope to make at Chicago." This interesting collection of North Carolina woods, probably the first of its kind to be made, was displayed at the World's Fair and later became a part of the Jessup collection.

While the landscape and forestry work at Chicago was receiving acquisitions from Biltmore it also made a contribution in the person of a young Canadian, Chauncy D. Beadle, fresh from Cornell, who was employed by Mr. Olmsted in the horticultural work at the World's Fair. The demand for trained men was so great and the supply so limited that Mr. Olmsted took young Beadle from Chicago and temporarily "loaned" him to the Biltmore work.

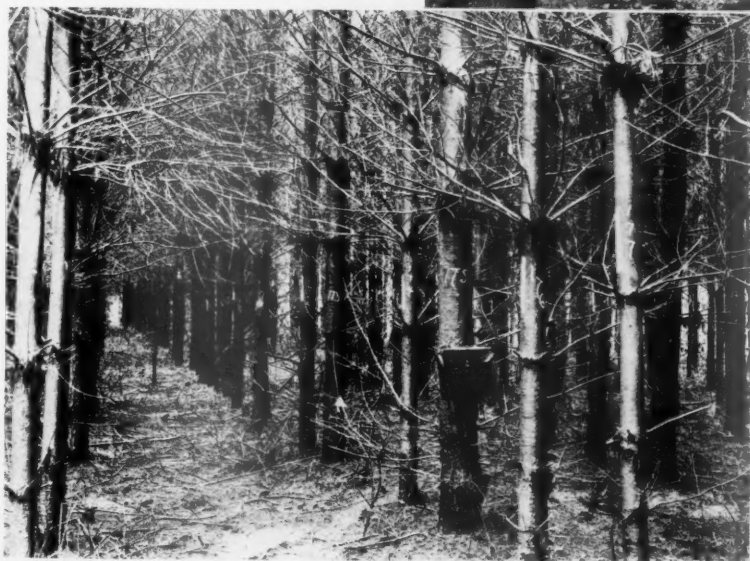
Several years later when Mr. Olmsted, having created at Biltmore one of the most beautiful examples of American landscape architecture, severed his connection with the estate, he left Mr. Beadle with the injunction to "preserve his picture." With the passing years have gone all the others whose efforts have added

background of native foliage and a ground cover of shrubbery. Mr. Pinchot said in his first report in 1893 that there were already in the nursery more kinds of trees and shrubs than were then in the Kew Botanical Gardens near London, England.

Such trial plantations would have been of the greatest value to the cause of American forestry and horticulture, but it became necessary to abandon the project because of the



At Biltmore—an eastern white pine plantation, about twenty years old, marked for its first thinning.



Left—An eastern white pine stand, marked for its second thinning, in 1929.

to the beauty and scientific interest of this spot, but Mr. Beadle still labors unceasingly to preserve and augment the natural charm which the master builder had so skilfully brought out.

In the early visions for the development of the estate the supreme ornament was to be an arboretum rivaling the long-established ones in Europe and far surpassing anything of its kind in this country. Accordingly, Mr. Vanderbilt, his collector's instinct guided by the experience and judgment of Mr. Olmsted and Mr. Pinchot, set about the joyous task of accumulating rare and interesting plants and trees. About 10,000 plants likely to prove hardy in this locality were collected. The more valuable varieties were to be set out along the road through the most beautiful part of the estate and the less important species through several miles of loop road. It was planned to have three specimens of each tree, with a

enormous expense and labor involved in its development and maintenance. Most of the plants were sold and the wonderfully interesting library and herbarium stored in the offices of the estate in Biltmore Village. The flood of 1916 inundated the lower floor of the building and many of the books were badly damaged. The remainder of these rare volumes and the herbarium were presented to the Smithsonian Institution.

In taking over the management of the forest Mr. Pinchot had three objectives: First, profitable production; next, a nearly constant annual yield which would give occupation to a trained force, allow a permanent organization and make regular operations possible; and third, improvement in the very mediocre condition of the forest with a view to its future possibilities.

He then determined on two systems of management. On the east side of the French Broad he planned to group even-aged trees for cutting on a 150-year rotation, while on the west side of the river the selection system would be used. These areas were divided into compartments of about forty-two acres each, separated by natural boundaries such as ridges, streams and hollows, and by the old woods roads which crossed the forest in every direction.

Such a division necessitated the use of accurate topographic maps of the region. As none were available, Mr. Olmsted

suggested that a cooperative arrangement for the mapping of the area be made by Mr. Vanderbilt with the United States Geological Survey. This was done, and at the suggestion of Frederick Law Olmsted, Jr., a youth then on vacation from college, Frederick Erskine Olmsted applied for the position and came down to North Carolina to work with his uncle and his former college mate, Gifford Pinchot.

Frederick Erskine Olmsted, fascinated by the place and by the problems and interests of the untried profession of forestry, and influenced no doubt by his friend's enthusiasm, decided to use his previous scientific training as the background for education in forestry. This decision was reached as he and Pinchot sat in intimate isolation before a campfire in the mountains back of Biltmore. As there were still no forest schools in America Olmsted also went abroad and spent two years under the inspiring tutelage of Sir Dietrich Brandis.

One of the most interesting contacts associated with the name of "Biltmore" in American forestry annals is that with Sir Dietrich Brandis, Inspector General of Forests in India, and guide and friend of all students of forestry. According to Mr. Pinchot, he was the first known forest administrator. In him was exemplified the vital force of those personalities who are constantly in touch with the fundamentals of life. So great was his love for his work and so boundless his mental and physical resources that at sixty-five years of age he appeared fresh and vigorous after field work which exhausted students still in their early twenties. In his later years he came to America and paid a visit to his former pupil, C. A. Schenck, at Biltmore. Mr. F. L. Olmsted, Jr., describes as one of his most delightful memories a camping trip in Pisgah Forest when Sir Dietrich, led on by Dr. Schenck,

charmed everyone with his reminiscences of India and his comparisons of forestry conditions there, in Germany, and in America. One of Sir Dietrich's most

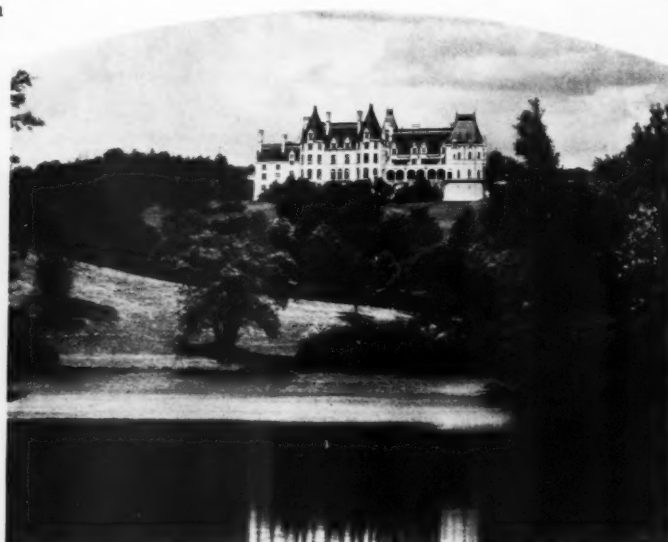
prized possessions was a photograph of President Roosevelt sent him in high appreciation of his work for the cause of forestry in the United States.

Mr. Pinchot's stay at Biltmore was too short for the realization of the plans which he had made. The ever-growing demand for his participation in national forestry affairs left little time for his individual attention to the details of the work at Biltmore and in 1895 he tendered his resignation to Mr. Vanderbilt. The following year he was made a member of the National Academy of Sciences, at that time the advisory body for Congress in all matters of forestry legislation, and in 1898 he assumed

control of the Division of Forestry.

In selecting a successor for Pinchot, Mr. Vanderbilt naturally wrote to Sir Dietrich for advice. Just at this time also came to Sir Dietrich young Carl Alwin Schenck of Darmstadt, Germany, in search of a job. Schenck's qualifications were such that he was immediately recommended and accepted for the Biltmore work. His love for his chosen profession was second only to his force and will power. Threatened with tuberculosis and chronic invalidism he had fought and conquered ill health, completed his forestry training and received his Ph.D. degree with the highest honors. He had also served the required year as an officer in the German Army.

Dr. Schenck took over the management of the forest in 1896. No easy task was his. In addition to the facts that American forest conditions are far more complex than those in Europe and that both he and Mr. Pinchot had to work without precedent, the young forester was confronted with the necessities.
(Continuing on page 319)



The magnificent chateau, the design for which was inspired by the famous French Chateau des Blois, stands on an elevated plateau.



This is the first forest planting on the Biltmore estate—eastern white pine set out by Robert Douglas and Son in 1889.



A glance into the primeval hemlock forest on the Roosevelt place near Hyde Park on the Hudson.

Governor Roosevelt's Forest

A Museum of What New York's Virgin Forests Looked Like When the Indians Roamed the Shores of the Hudson

By NELSON C. BROWN

THE Roosevelts have always been tree lovers. Two Governors of that name in New York have been great leaders in woodland protection and the advancement of forestry. For over a century the Roosevelt family has consciously guarded, protected and developed the wooded areas on the country place at Hyde Park. But it remained for the present Governor Franklin D. Roosevelt to initiate and carry out for the past fifteen years a definite plan of forest management.

Nor has this interest been a sentimental one alone. Of course, he has loved the trees. But being practical minded and realizing that trees must be handled like any other crop, he has carefully tended the forest. Mature, misshapen, diseased and inferior specimens have been removed and fire has been kept out. And the Governor has found it profitable to do so.

For several years he has kept account of his products—the sales of cross-ties, piling, poles, sawlogs and cordwood. The New York Central traverses the lower part of the estate along the Hudson River. It needs wooden cross-ties to keep the fast-moving trains safe and smooth running. The Governor's forest supplies some of its needs. Wharves need piling, telephone lines need poles to support them, houses must be warmed with fuel. The forests on the Roosevelt woodlots

are kept busy, working constantly both to preserve the beauty of the place and to supply products needed by the home and industry.

Much of the 1,200-acre place is wooded. And a veritable arboretum of native species it is. On the steep Hudson River slope is a primeval grove of hemlocks, whose pristine beauty is unmarred by the ax. This grove is being preserved for posterity as a museum of what our original forests looked like when the sturdy Dutch forefathers first settled these shores. The Governor's most impressive and stately stand of timber is the white and red oak forest lying to the east of the Boston Post Road. By judicious and careful cutting, the beauty and capital growing stock have been preserved. It has yielded valuable products and is today a living example of successful American forest management. One might imagine he was in the stately forests of Epinal in the Vosges—the most successful of French municipal forests or even in the famous forests of Fontainebleau or of Compiègne.

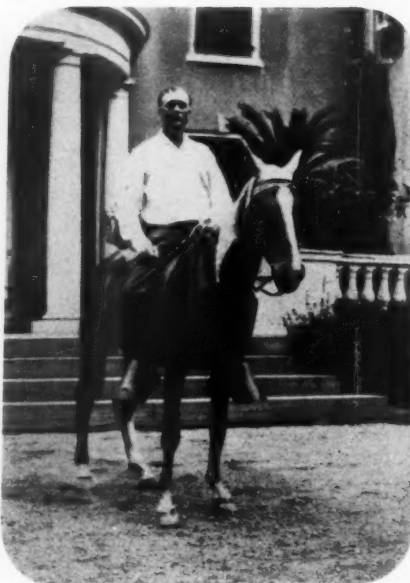
Here and there on the Roosevelt place, agriculture has outlived its usefulness. It does not pay to keep some of the lots under the plow. So Governor Roosevelt has been in the vanguard of the great reforestation movement in the state by planting trees. Not by the ten or dozen or the hundred, but by the thousand. The most impressive plantation is one of

white pine—now fifteen years old. This has been thinned and pruned by the most acceptable forestry methods. It is very similar to the American white pine stands in the Rhine Valley or the Weymouth pine plantations as they are called in the British Islands. Then there is a successful Christmas tree plantation of spruce and here and there are open spaces in odd corners where Scotch pine, red or Norway pine, white and Norway spruce have recently been planted.

During the spring of 1930 the Governor worked out a plan of planting 15,000 trees in experimental demonstration plantations along the main highways crossing his country place. Here are various trees in mixtures and in pure plantations, in varying degrees of spacing and on different types of soils to test out their growing capacity and adaptability to the soils and climate of the region. These are the first regular experimental and demonstrational plantations in the lower Hudson River Valley. Governor Roosevelt cooperated with the New York State College of Forestry at Syracuse in initiating these demonstrations and experiments. There are plots of Norway pine, European larch, western yellow pine, white and Norway spruce placed along well-traveled highways so those who "run may read." The Governor is an enthusiastic advocate of "seeing the trees grow." He

often rides horseback through the woodland trails or drives his handy Ford through roads that have been used for several generations to bring out the products of the forest. Nestling

cosily among the cedars in the eastern part of his place is a swimming pool where the Governor enjoys one of his favorite sports in its fascinating sylvan setting. With his deep appreciation of trees, it is natural that Governor Roosevelt should have been in hearty accord and sympathy with the enlarged reforestation program of New York State. He approved the first \$125,000 appropriation in 1929 for the purchase and planting of idle lands in the state under the \$20,000,000 reforestation project set up by the State Reforestation Commission. In 1930 he approved the special item of \$400,000 to continue the program which it is hoped will be approved by the people of the state in the fall elections of 1931. The nation has been fortunate in its wood-minded governors. As long as we have men like Governor Roosevelt in our state capitals we can rest assured that our conservation interests are not only being defended and protected but still more important are extended. If all our woodland owners had nurtured and cared for their heritage of trees as Governor Roosevelt has done, the hills and slopes of our native land would have remained forever green.



The Governor often rides horseback through his woodland trails.

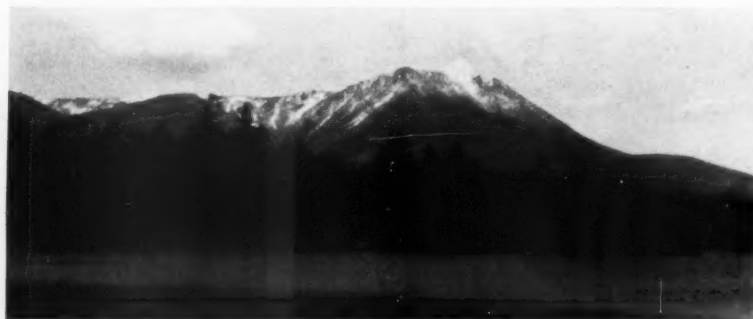
MT. KATAHDIN BECOMES STATE PARK

MT. KATAHDIN, Maine's highest and most famous mountain peak, is to become a State park and sanctuary. Three-eighths interest in the sixteen square miles embracing the major portion of the peak has been donated to the state by former Governor Percival P. Baxter, of Portland.

In presenting the area, Governor Baxter stipulated that the mountain must be kept forever for public park and recreational purposes, be forever left in its wild state, a sanctuary for beasts and birds, and free of all roads or ways for motor travel. He also requested that he be allowed during his lifetime to determine and place whatever markers or inscriptions shall be erected or maintained within the area.

The area given to the state includes the whole of the famous mountain peak and its tablelands. All of the notable features of the area are to be found in the gift, including Monument Peak, Pamola, and Knife Edge, one of the strangest natural formations in America. Other features included are Basin Pond, Whidden Pond, North Peak, and South Peak.

The grandeur of Katahdin, its precipitous slopes, its massive cliffs and unusual coloring, has made it one of the most picturesque mountains in the country. It rises abruptly from the plains to an elevation of 5,273 feet, and without foothills to detract from its solitary dignity, stands alone a grim, gray tower overlooking the surrounding country for hundreds of miles.



Beautiful Mt. Katahdin, in Maine's wilderness.

WHAT PRICE FISHING?

By EARL C. O'ROKE

WHEN you go touring this summer the primitive man in you will urge that you take along a rod and tackle box and do a little fishing here and there. But have a care! Just as soon as you venture beyond the borders of your home state you become an outsider, a nonresident, a new source of license money.

Take a look at the map. The states are not all unfriendly. In fact some of them are so generous that you may wonder how the folks back home have the temerity to charge you two dollars to fish for bullheads. Compare sizes and prices. Delaware, with a limited assortment of geographic features spread over a small area, charges you five dollars to bait your hook. Georgia, with its thousands of square miles of varied topography, says "come on in, the fishin's fine."

If you are traveling from the National Capital towards the Maine woods, stay in Pennsylvania as long as you can. The Quakers may be a little shy on speech, but they are generous with their fishing privileges. They simply charge you what your state charges their citizens for like accommodations.

When you get into New York let your fourteen-year-old boy do the angling. The privilege there is free to children as it is in many of the other commonwealths. Adult non-residents, however, pay five and one-half dollars to fish in the Empire State. Upon arriving in New Hampshire you should borrow someone's blind uncle to tour along with you. Then sit beside him and tell him when to pull while he entices the finny vertebrates from the water. Blind people fish free in New Hampshire.

Should you desire to fish in the northern Lake States, it would be well to shop around a little. Michigan charges five dollars for fishing, but will meet Wisconsin's three-dollar rate if you specify that you want to angle instead of fish.

You may fish in Minnesota's ten thousand lakes for three dollars, or try those just across the line in North Dakota at the same price. South Dakota attracted so many fishermen when Coolidge was there that she still lets you fish for two dollars. This includes a chance at the brook trout in the Black Hills, but you should get the speckled beauties while the getting is good, for the price increases as you journey westward.

Utah used to be a veritable oasis with a one-dollar license fee, but she has learned about fishing from neighboring states which charge four, five and even ten dollars.

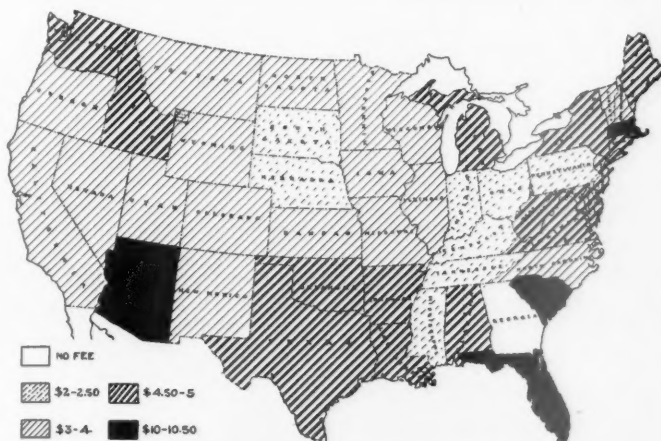
If you are out to see how much money you can spend, take a hundred dollar bill and buy county licenses in Chicot and Desha Counties in Arkansas. You will then be dead broke. Wire your rich uncle for another fifty and try Arizona,

Massachusetts, South Carolina and Florida. You will still have enough left to fish in either New Jersey or Connecticut, but not in both, and you haven't yet begun to exhaust the possibilities of fishing in states where the nonresident

fee is five dollars. But there is a brighter side to the picture. It is surprising how many states practice the golden rule of charging you just as much or as little as your state will charge their citizens to come and fish with you. Washington restricts this privilege to her near neighbors. Connecticut and Virginia are not so particular. If you live in Kentucky and want to fish in Pennsylvania, it is two dollars and fifty cents. But if you dwell in Florida and desire to cast a line in the Quaker State, it will cost you a ten-dollar

bill plus an additional half-dollar. If you are looking for bargains, Arkansas will sell you a special fifteen-day trip license for a dollar and ten cents. Missouri will underbid this by a dime. Texas restricts the duration of your trip to one-third this length of time, but lets you fish in streams three times as long, all for a dollar and ten cents.

It may at one time have been true that what this country needed was a good five-cent cigar. What it now needs is a good interstate fishing license. No tourist wishes to pay a total of twenty-five dollars for the privilege of fishing in each of a half-dozen states through which he may chance to pass on a two-weeks' trip. Perhaps some sort of courtesy arrangement might be worked out between states.



This map shows the cost to a nonresident citizen of fishing licenses in the various states of the Union.



The bloom of rhododendron paints the hills in June with riotous color.

A Meeting in June in

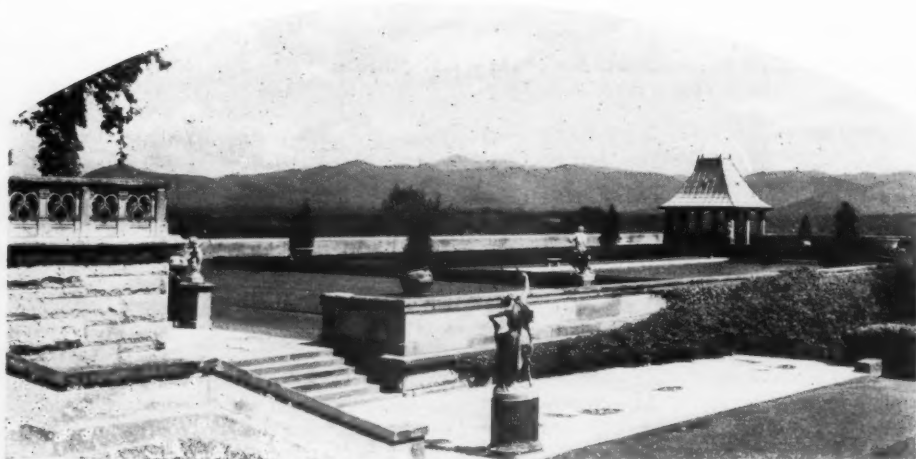


RANGE UPON RANGE OF 30 F

THE Southern Appalachians in early June—green virgin forests, swift, clear streams and unsurpassed scenery, fragrant with the bloom of azalea, rhododendron, mountain laurel and tulip trees. Here, at historic and picturesque Biltmore, is cradled much of the early history of forestry; here, rugged peaks of the Great Smokies hold the mysteries of the nation's newest National Park; here, in the Pisgah National Forest, is the sanctuary of the whitetail deer and other wild life.

And here is to be the site of the 56th Annual Meeting of The American Forestry Association. On June 3, 4 and 5, members and others will gather with members of the North Carolina Forestry Association for a joint meeting at the Grove Park Inn, at Asheville, North Carolina. They will be addressed by the outstanding authorities in the East and South. They will see at first hand the unequalled "Land of the Sky," once the great domain of the Cherokee. A complete program of the meeting will be found on page 279. The public is cordially invited.

Because of the grandeur of the southern Appalachians in early June, because of its intriguing forests and forest lore, an appealing outdoor program has been arranged, including trips to the



From the steps of the château at Biltmore—far-flung, deep green hills, with blue skies arching above.

in The Land of the Sky



OF SOFT GREEN FORESTED MOUNTAINS



Where the dark river birch bends and whispers to the rushing, laughing stream.

Biltmore estate and Mount Pisgah. Opportunities will be afforded to visit the Great Smoky National Park, Mount Mitchell, Grandfather Mountain, Chimney Rock, and other interesting points.

On the spacious grounds of the Grove Park Inn there will be an impressive tree-planting ceremony by the Boy Scouts of Asheville. Exhibits and displays promise to be more elaborate than ever before, while the American Forestry Cup, awarded annually for the most effective forestry educational work by private and state forestry agencies, will be hotly contested by practically every state in the country.

No more beautiful and interesting location could have been chosen by the Association for its annual meeting than the "Land of the Sky." It is where the great eastern hardwood belt meets the deeper green of the southern pine. It is a country of forest adventure, of forest romance. And while the cradle of forest history, it is at once the land of forest futures.

The American Forestry Association will make hotel reservations, secure tickets for the American Forest Banquet, and arrange for all excursions. Write now!



Here in sparkling streams and deep pools lie real lure for fishermen—so bring along your rod and reel.



Greeley Holds Domain Report Inadequate

Former Chief Forester Sets Forth Reasons for Not Signing Committee's Recommendations

IN A LETTER to the Editor of AMERICAN FORESTS dated March 28, William B. Greeley, former Chief of the United States Forest Service, sets forth his reasons for withholding his signature from the report of recommendations recently submitted by President Hoover's Committee on the Conservation and Administration of the Public Domain. Colonel Greeley was one of twenty members of the committee appointed by President Hoover to work out a plan for the protection and administration of the Government's 180,000,000 acres of unappropriated public lands. All members of the committee signed the report with the exception of Colonel Greeley who, in his letter, states that while he concurs in a public land grant to the states he feels that in the form of grant proposed, the committee has failed to adequately define or provide for the permanent functions of National Forests in these western areas.

At the outset of his letter, Colonel Greeley says that he concurred in the publication of the report with the omission of his name as approving it. This was because of Chairman Garfield's desire not to encumber the report with statements of exception and in fairness to the efforts of the committee to reach unanimous conclusions.

"I concur in the major recommendations of the report," Colonel Greeley writes, "for a grant to the states of the greater part of the unreserved and unappropriated Public Domain, *where forest and important watershed values are not involved*. I believe it would be sound public policy to transfer to the states prepared to accept them most of the unreserved lands whose primary value is for grazing, for the following reasons:

"1. This is apparently the only practical solution of the paramount necessity of placing such lands under some responsible custody and administration.

"2. Most of the Western States are now administering large areas of similar land, scattered through the unreserved Public Domain; and as a matter of state development and progress, they might wisely be entrusted with the care and administration of the intermingled and surrounding public lands.

"It is my conviction, however, that before making the proposed grant to the states the existing Federal policies and forms of administration for the conservation of natural resources should be given full effect. The Report recommends

this only in part. On page 5, it provides for correcting and rounding out the boundaries of National Forests by the consolidation of areas wherever practicable, but also that 'additions to National Forests should be limited to areas chiefly valuable for forest purposes, except upon request of the state involved.' I believe that we should deal with these public lands in national terms—in accordance with a common national policy; and the Report fails, in my judgment, to adequately define or provide for the permanent functions of National Forests in these western areas.

"Specifically, I believe that lands of evident importance for the conservation of stream flow or control of destructive erosion should be placed within National Forests as far as practicable, regardless of the nature of their cover.

"Preservation of 'favorable conditions of water flow' is one of the functions of National Forests defined by law. Extensive areas have been placed within National Forests primarily for this purpose, and with beneficial results. The conservation of water and reduction of destructive erosion are of vital importance to all the interests, local and national, concerned with the Public Domain. It is my conviction that the use and rehabilitation of areas where these water problems are clearly important, often requiring special treatment or regulation of other uses, can be provided for most effectively by their inclusion within National Forests.

"I also advocate the addition to National Forests of lands necessary to practically adjust

their boundaries for grazing administration under local seasonal and other conditions; and that similar consideration be given to practical grazing requirements in any eliminations from the forests.

"The National Forests have developed and applied constructive methods of range administration for over twenty-five years. Considerable areas have been placed within their boundaries, in some instances by acts of Congress, primarily for the benefit of range conditions and the local livestock industries. An extensive use of public ranges closely related to local ranches and farm communities has become established under the National Forest system of grazing permits and preferences.

"In a word, National Forest range management is an established, going method of practical administration and con-



William B. Greeley.

Former Chief, United States Forest Service.

servation—directly in accord with what I conceive it to be the purpose of the Committee's investigation to provide on the remaining public lands. It should not be broken up or restricted on the theory of limiting National Forests to timber-producing lands. Range administration should be recognized as a function of the National Forests, and their boundaries adjusted to its practical requirements.

"It is also my judgment that the allocation of the public lands to the various forms of disposal, through the medium of the land boards proposed by the Committee, should take the form of a real classification, without time limits or other restrictions upon an orderly and permanently satisfactory determination of the proper disposal of each area. Furthermore, the recommendations of the land boards, including areas to be clear-listed as state grants, should be confirmed by executive order before they are given effect.

"The classification and permanent disposal of the Public Domain, including additions to National Parks, reservations for national defense, and additions or eliminations from National Forests, are of sufficient public moment to warrant their submission to the President. Heretofore, the disposi-

tion of public lands for many of these purposes has required specific legislation. While prompt action is desirable, a check upon the recommendations of the land boards and opportunity for further consideration when deemed necessary by the President should be afforded.

"The Committee goes out of its way, as I see it, under paragraph 5 of General Policies (page 2), to recommend under vaguely stated conditions the transfer of 'certain mineral resources' to the states. This recommendation has no bearing upon the matters specifically dealt with in the Report. It evidently contemplates the ultimate transfer of the Federal oil, coal, phosphate, and other mineral reserves and resources to the states, when uniformity in state and Federal legislation and administration for dealing with them shall be brought about. I seriously question the soundness of this proposal and believe that it should at least be reduced to definite terms before given further consideration.

"With these exceptions, I concur in the major recommendations of the Committee and believe they would form a sound basis for dealing with the unreserved public lands."

Program of the Annual Meeting of THE AMERICAN FORESTRY ASSOCIATION

Which Will Be Held Jointly With the North Carolina Forestry Association at the
GROVE PARK INN, Asheville, North Carolina, JUNE 3, 4, and 5, 1931

WEDNESDAY, JUNE 3

Morning Session—10 o'clock

Chairman, Mr. George D. Pratt, President, The American Forestry Association

"The Land Situation in the Southern Appalachians," Dr. L. C. Gray, in Charge, Land Economics, United States Department of Agriculture

"Forest Conservation as a Function of State Government," Colonel Henry S. Graves, Dean, Yale Forest School

"Soil Erosion—A National Menace," Hugh Hammond Bennett, United States Department of Agriculture

Immediately following the morning session, Boy Scouts will plant on the grounds of Grove Park Inn a walnut tree grown from seed collected at Mount Vernon. This planting will be in honor of the bicentennial of George Washington.

Afternoon Session

The afternoon will be devoted to a trip to the famous Biltmore estate a few miles outside of Asheville, which has been called the cradle of practical forestry in America. It was here that the first forest school was started in this country and that Gifford Pinchot and Dr. Schenck began the practice of forestry. These early plantations are interesting demonstrations today. The estate is also famous for the landscape work done by Frederick Law Olmsted and for the Biltmore House, one of the finest country homes in America, which contains authentic relics, antiques and other objects of art collected by Mr. Vanderbilt from all over the world.

Annual Banquet—Grove Park Inn—7.30 P. M.

Toastmaster, James G. McClure, President, Farmers Federation

THURSDAY, JUNE 4

Morning Session—9.30 o'clock

Chairman, Col. J. W. Harrelson, Director, North Carolina Department of Conservation

"State Forests and Parks," William G. Howard, Superintendent, Lands and Forests, New York Conservation Department

"National Forests in a Coordinated Program of Land Use," R. Y. Stuart, Chief of the United States Forest Service

"The Meaning and Place of National Parks," Dr. Wallace W. Atwood, President, Clark University

Following this session, the convention will be taken by automobile to Pisgah Inn for luncheon. The Inn is located on the Pisgah National Forest at an elevation of 5,200 feet and commands a magnificent view of surrounding mountain ranges. The entire afternoon will be devoted to this field trip, where forestry practice and National Forest management can be viewed at first hand. This portion of the National Forest is also a Federal game preserve, and the flowering shrubs in their wild state and mountain scenery are exceedingly beautiful.

Evening Session—8 o'clock

Moving Pictures:

- (1) Forestry Educational Work
- (2) Wild Life
- (3) Soil Erosion

FRIDAY, JUNE 5

Morning Session—10 o'clock

The convention will visit the American Enka Corporation plant located about eight miles from Asheville. This is the largest single unit plant in the world engaged in the magical process of transforming wood pulp mixed with cotton linters into rayon. The opportunity to visit this plant is a rare one and should be highly interesting and informative.

Afternoon Session—2 o'clock

Chairman, Colonel Joseph Hyde Pratt, North Carolina Forestry Association

The afternoon will be given over to a general conference for open discussion and for the making of plans for furthering forest acquisition by states and the Federal Government and for the passage of resolutions.

SATURDAY, JUNE 6

For those remaining over until Saturday, automobile trips may be arranged to the following points of interest: Linnville Gorge and Grandfather Mountain, Mount Mitchell, Great Smoky National Park, Bent Creek Forest Experiment Station, Chimney Rock, and Lake Lure.

THE NEW PUBLIC DOMAIN

(Continued from page 264)

state is in the nature of an advance payment to the local government to help it along while the timber is maturing. So far these forest tax laws with few exceptions have not proved effective in stopping the flow of tax-delinquent land into public ownership.

In many of the states there is a disposition to look to the United States Government to lift much of the wasteland burden from their shoulders by acquisition of large tracts for National Forests; they forget that the fifteen-million-acre acquisition program of the Federal Government is but a drop in the bucket compared with the vast area of unused land.

The movement for creating state forests, county forests, game refuges, state and county parks, is gaining momentum in practically all Northeastern States, largely both as a means of meeting the needs of a constantly increasing number of tourists and also as an outlet for the use of land which is crowding upon the states and counties. With the few notable exceptions, however, most of the state and county forests are mere paper forests with no technical supervision and no funds for their proper management. Some of the states have not yet awakened to the seriousness of the situation; others are financially incapable of coping with the problem. This is especially true of counties which, in the cut-over regions, are for the most part in hard financial straits and have barely enough funds for carrying on the business of the local government, to say nothing of an extensive program for the rehabilitation of cut-over land.

Yet the only economic salvation for the millions of

acres of tax-delinquent, abandoned and reverted lands lie in their reforestation, in their development for recreational purposes, in learning new uses for inferior trees on the cut-over land, in increasing the game and fish resources of the region, and in making it the playground for the people from the cities and surrounding territory less fortunately endowed with cool summers, clear streams, beautiful lakes and green forests. The states will have to come to a comprehensive program of reforestation and recreational development of this newly acquired Public Domain. Some states, like New York, Pennsylvania, Michigan and a few others, have already embarked on comprehensive plans for establishing state forests, game refuges, and for purchasing and reforesting abandoned farm land. All the other states, whether they want to or not, will also have to take their belts up a notch and buckle down to the task.

No other solution seems to be in sight at present. The going at first will be slow and rough. It may involve readjustments in the local units of the government. New methods of agricultural settlement will have to be evolved. Sources of taxation, other than real property, may have to be found, and the whole burden of taxation redistributed. If, however, in this process, the land now practically waste could be made to produce wealth again and benefit agriculture by reducing the acreage of marginal land, then this new Public Domain may prove a blessing in disguise. It will eventually become a source of economic stability and independence just as the original Domain was in the past.



Lilian M. Cromelin.

MISS LILIAN M. CROMELIN, Assistant Editor of **AMERICAN FORESTS**, on May 3 will round out twenty-five years of loyal and inspirational service to The American Forestry Association and the cause of forest conservation. Taking up the Association's work under the leadership of Thomas Elmer Will in 1906, she has had a significant part in its expansion and influence, lending to the cause an extremely sympathetic nature and constructive vision. In 1918 she became assistant editor of the Association's publication, then **AMERICAN FORESTRY**, and her keen feeling and perception of the beauty and charm of the forests and outdoors, as well as her knowledge of basic needs, is reflected in its rapid rise to the outstanding publication of its kind in the world.



EDITORIALS

On to Asheville

IN SELECTING Asheville, North Carolina, for its fifty-fifth annual meeting, The American Forestry Association has selected probably the most interesting spot, historically, in the United States from the standpoint of early forestry development in this country. It was in the foothills surrounding Asheville that the first systematic efforts to practice forestry on a commercial scale in this country were born. A lone pine tree on a distant mountain top lured young George Vanderbilt in the late 80's from the veranda of an Asheville hotel to the exploration of the surrounding mountain country. These explorations resulted in his acquiring a vast mountain estate and in plans for managing the forest area under the best forest methods. It was here that Gifford Pinchot first began the practice of his profession and first injected his personality of dominant leadership that a few years later under Theodore Roosevelt awakened the whole country to the need of conservation. It was on the Vanderbilt estate, too, that the first forest school in America was started by Dr. Carl Schenck who sent forth the first trained American foresters.

The beauty of these same haze-hung mountains inspired in Dr. C. P. Ambler and his companions while on a fishing trip the idea that later led to the Weeks Act from which have come the National Forests in the East and the nation-wide

system of cooperative fire protection that is today providing organized protection to 234,000,000 acres of forest land. It has been said that American forestry was cradled in the mountains surrounding Asheville and in a very large degree that is true, but the region is interesting not alone for its historical forestry background. It is today a center of diversified forestry and conservation that embraces National Forests, National Parks, forest research, wood utilization, State Parks, wild life preserves, and forest recreation. The work of the early pioneers adds color to present-day activities and provides intensely interesting demonstrations and comparisons.

The gates that open into this alluring and inspiring land will be flung wide to those who attend the Association's meeting on June 3, 4, and 5. It is the season when the mountains will be at the height of their beauty. The mountain laurel and rhododendrons will be in full bloom. The major portion of each day will be devoted to interesting field trips, while the headquarters will be at Grove Park Inn on Sunset Mountain. This is one of the most famous and delightful hotels in the world. All in all, the meeting offers a rare opportunity for those who love the smell of the pine, the fragrance of flowering mountainsides, the music of swift running streams, and the inspiration of conservation's purpose.

A Dangerous Grant

AMONG the recommendations of the Public Domain Committee, whose report was reviewed last month, is one of special import to the National Forest system. The act which the committee proposes to carry out its recommendations as a whole would provide for the creation of state boards invested with the power to make additions to and eliminations from the National Forests. These boards would consist of five members, one appointed by the President, one by the Secretary of Agriculture, one by the Secretary of the Interior, and two by the state. The duties of the boards would be to determine what, if any, lands within areas recommended by the Forest Service should be added to the National Forests and to decide what, if any, areas within the existing National Forests should be restored to the Public Domain. The boards would have one year in which to make their land studies and to complete their findings, which as we interpret the committee's report, would be final.

However well-intentioned the committee's proposed plan may be for adding to and taking from the National Forests, it involves a grant of power so extraordinarily broad as to challenge good public policy. At the present time Congress only has the power to change National Forest boundaries in nine of the eleven Western States where the bulk of the Fed-

eral forests are located. The two exceptions are Nevada and Utah in which states the President has authority to alter forest boundaries. The Public Domain Committee's proposal, therefore, if enacted into law would transfer the existing power of Congress and of the President to state boards of five members, thus giving them unlimited authority to alter the boundaries of public property of incalculable value and of interstate and national importance.

These boards, for example, would have the power to eliminate land from the forest. In the event three members of a state board should be so minded, they could virtually dissipate the National Forest system in that state and turn its lands and resources over to the state. This is too much power to place in the hands of a few men. It is inconceivable that Congress will consider such unlimited delegation of its authority. The fact that three members of each state board would be appointed by Federal cabinet officers does not necessarily guarantee complete or adequate protection to the public's natural resources. How a cabinet officer like Albert B. Fall might seek to use a set of boards of this character is worthy of consideration.

In expanding the National Forests to include Public Domain lands of timber and watershed value, there is no neces-

sity of thus jeopardizing the National Forests in any state. Even granting that all members of these boards would be friendly and sympathetic to the forest system, it is hardly to be expected that all would have the same viewpoint or conception of Federal forests as a national institution. Instead of a uniform system based upon a common conception of land use, national interests, and boundary determinations, the state boards might easily make over the National Forests into state groups based upon different and opposing views and interests. This would be disastrous to national forest integrity and administration.

Governor Roosevelt Befriends the Trees

NEW YORK'S governor is taking a leaf from the experience of his illustrious relative and is again breathing vitality into a time-worn word. "Conservation," says Governor Roosevelt, who practices forest conservation on his own lands, as told in Mr. Brown's article on page 273, "means something to everyone. Its implication of saving and protecting what we own that is of genuine worth, whether of wealth, of health or of happiness, is inclusive enough to take in all the functions of government."

Pleading for favorable consideration by the people of the Hewitt amendment to the constitution, he points out that New York's Department of Conservation touches closely the public wealth, health and happiness. He tells how the State of New York is embarked upon a program of making good use of good things that have been too much neglected in the past. "And we have found," he said, "that there are no artificial joys to replace the natural benefits of wooded hills and fertile valleys, clear mountain air, forests peopled with

protected wild life, sparkling lakes and rippling, unpolluted streams."

To cover the bare areas where productive forests stood, and to reclaim the hundreds of thousands of acres abandoned for farm use a great program of reforestation is proposed. The Conservation Department already has the work under way but the Hewitt amendment to the state constitution would provide a continuous series of appropriations, aggregating \$20,000,000 with which to acquire and plant to forest trees one million acres of idle land by the year 1944.

There is a program worthy of the Empire State. It dwarfs the present program of the United States Government, for in the same period, if Congress keeps on at its present pace, the appropriations for planting on National Forests will have barely reached \$5,000,000 by 1944. Perhaps the passage of the Hewitt amendment may help to wake the members of the National Congress to their national responsibilities.

Beauty Rides the Highways

THE days of the roadside billboard are numbered and beauty rides the highways. Thus might be summarized the winter's campaign against uncontrolled roadside advertising in the United States. From coast to coast the movement for roadside beautification has gained momentum, found its fighting blood, so to speak, and has singled out the unsightly billboard as the first enemy of roadside beauty to be routed.

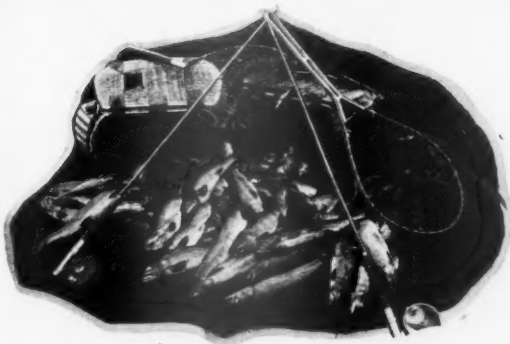
The National Capital and surrounding territory has been the main battleground of the winter's warfare. Beautification of roads leading into Washington by 1932—the 200th anniversary of the birth of George Washington—has been the battlecry of many organizations, private and public. Decisive victories have been won. Before adjourning, Congress bowed to beauty and passed an act giving the Commissioners of the District of Columbia broad authority to control the erection of outdoor signs and other forms of exterior advertising "on public ways and public space under their control and on private property within public view within the District of Columbia." Within the past month the Maryland Legislature has passed legislation to a similar end.

These efforts centering around the National Capital and featuring the Bicentennial of George Washington have dramatized the whole movement for roadside beautification. New Jersey has recently passed a law to control outdoor advertising and bills of similar character are being considered by the legislatures of some thirteen states. If the plans contemplated for beautifying the roads leading into Washington are carried through by next summer, the legislative victories achieved this past winter should give permanent as well as nation-wide stimulus to the movement for roadside landscaping. People from all parts of the country are expected to visit Washington in 1932. They will come by hundreds of thousands and by millions. The

majority will come by the automobile highways. The National Capital will therefore form a great demonstration and proving ground of the civic value of attractive and inspirational roadways. Hundreds of thousands returning home will carry with them the impulse and determination to start or to give active support to local movements to beautify their own city and state highways.

It goes without saying that the movement to improve the scenery along our highways and the approaches to our cities is a highly desirable one. Action possible through laws controlling unsightliness on both public and private property as illustrated by those passed by Congress and by Maryland are significant. It would be unfortunate, however, for the layman to assume that roadside beautifying consists only of eliminating or controlling billboards. The movement must go beyond the eradication of unsightly outdoor advertising and must develop in the public mind a program that considers all natural beauties of the region and the art of best featuring them from the highways. Existing trees along the way should be protected and encouraged, new trees and shrubs should be planted or bare cuts covered with grass or vines according to the treatment which best harmonizes with natural settings.

Steps toward practical coordination of beauty and utility are being taken in a number of states, some of which have included landscape advisors or tree wardens in the staff of their state highway departments. The jurisdiction of these special advisors frequently extends for several hundred feet on either side of the road. It includes the responsibility for planting trees, shrubs and ground-covering plants, the care of existing trees and the general appearance of the roadsides. When all the states have similarly supplemented the staffs of their highway commissions and provided them with adequate legal authority, backed by strong and intelligent public opinion, the beauty of America's highways will be assured.



The Care of Fishing Tackle

By FRITZ SKAGWAY

LET me look down the inside of a hunter's shotgun barrel before he goes into the field and I'll tell you in an instant what kind of a sportsman he is. If the gun is comparatively new (and by that I mean four or five years of age), and he tells me he alone has used it, his record as a hunter is evident at once. No good sportsman ever loans his best gun. If the interior is dull, corroded, and with noticeable rust streaks, the man is, as a general rule, a careless hunter. I wouldn't be surprised to know that he carries his gun cocked or with the safety off.

The same applies to the fisherman's rod, reel, lines and other gear. When I see an angler carrying his rod tip first when ambling through the woods or brush I put him down as an amateur. The rod should be carried butt first, the line and lure held in the hand, or the fly, if a fly rod is used, stuck securely into the cork handle or the ring for that purpose next to the handle. If there is not too much reason for haste, the equipment should be taken down and packed.

No fisherman worthy of the name should enter the field with cheap tackle. Only the best tackle one can afford should be used. That does not mean gold mountings or special jobs, but the best of standard goods. Cheap tackle that is made to sell at a low figure is not worth the buying. It will be regretted when it starts going to pieces or fails to stand the rough treatment of old man trout or bass. It is better to own one good rod than a dozen different weight rods of mediocre make. I learned the value of good workmanship in tackle when the grayling and big trout were doing big things far in the fastnesses of Alaska, where I could not obtain new equipment. And after buying the best of tackle it should receive the same care a new car does during the first week. Only the care of tackle must be prolonged throughout its life.

Invariably, the angler's most prized possession is his rod, or his collection of rods, depending on his ability to buy. I know I prize my tempered bamboo fly and casting rods above all other sports equipment. My fly rod has a personality not found in any other article that makes up my sport equipment. When a rainbow strikes the fly I know just how much battle I can give him without injuring the rod—and I give it to him. Usually, I win, but at times the fish is the winner

and in no event is the rod at fault. One learns to love a rod even as one loves a good, sturdy car that carries one faithfully to and from the fishing and hunting country. By reason of its resiliency and power my fly rod responds to my every mood. If I wish to place my fly ten feet farther into the next riffle on the river I may do so without moving from my position, for the rod has that added power in reserve, awaiting my will. I have never found two rods of exactly the same length and weight with precisely the same action. It is the same as two automobiles run from the same mold—each is an individual.

A good sportsman, one who cares for his tackle, is always roused to righteous indignation when he sees a good rod abused. I have seen men with high-priced, beautiful rods take them apart and throw the loose sections down in the dirt on the camp floor. Another unwise trick of the careless fisherman is to knock his rod about, bruising the enamel and straining the tip. In case of split bamboo the varnish will be scraped off, the windings frayed and the wood exposed to moisture. That means the rod loses its resiliency and nothing is so pathetically hopeless as a "dead" fly rod. If the rod is of steel the enamel is broken, allowing water to rust and weaken the part. Eventually, it will snap, and probably at a time when John Bass is getting



The "big ones" lie in deep, fast white water—the eternal lure of the experienced angler.

in his strongest licks. Injured guides and smashed ferrules are the lot of the rod knocked about carelessly. A good rod case, preferably of metal, is a good investment. When through fishing, the rod should be dried in a cool place, wiped and placed in the cloth case and put away in the metal container.

Once my son, in his eagerness to secure a vantage point on a rock jutting out into the rapids of the upper Yukon, used his new fly rod as he would a toboggan, or at least it seemed that way to me, with the result he frayed the windings and bruised the tempered bamboo. He paid the repair bill and since then has been more careful.

A rod should never be placed on the ground. While fishing for cutthroat trout in Kitsumgallum Lake, in British Columbia, I laid my rod down on the bottom of the boat which was anchored near the mouth of Maroon Creek. I was changing flies when my companion snagged into a salmon and in the battle that ensued he stepped on my rod tip, grinding it to powder. It was my own fault and it taught me a lesson. Always stand a rod up where it will be seen. A bamboo rod must never be left in the open to suffer dew all night. If mud dries on the surface of the rod it should be softened before it is removed. When fishing is over for the day the rod should be wiped with a soft, damp cloth, then a dry one and put away. Occasionally a drop or two of linseed oil may be used after the dry wiping. In case of a steel casting or fly rod use an oiled or greased cloth. Excessive heat destroys rods.

Should one experience difficulty in separating the rod sections, it is wise not to force them by twisting. The joints are of glued, thin strips of bamboo and will only twist apart, ruining the rod. It is best to have someone hold one and at a given signal jerk them apart. When removing the sections preparatory to placing them away it is best to apply a bit of vaseline to the section ends, or rub the cold metal against the nose or forehead or through the hair. Sufficient oil from skin and hair will adhere to make it easy to separate the next time. I know of no better way of ruining a good reel than to cast all day without oiling it, unless it is knocked around in a sandy pocket or kicked about in the bottom of the boat. The best reel made cannot endure such treatment long. When casting the reel should be oiled every fifty casts, at

least, and again, thoroughly, before retiring it at night. When I take my reel from the rod I wind it up and place it in the box it was shipped in. No dirt there. Any soft leather bag will do. An expensive reel is as delicate as a watch and should it be accidentally dropped

in the sand or dirt it is best to take

it entirely apart and bathe each part in oil before replacing. A single grain of sand can play havoc with the finest reels. The line must always be dried when the day's sport is over—but not in the sun. The rays of the sun will rot the finest line in time. Dry it in the shade of trees or, if the day be wet, dry it inside the tent or cabin. It is best not to hook it over nails in the drying process, as this has a tendency to rust the line. It is well to remember that oil on water will rot the finest line. If one should inadvertently fish in oily water, it is necessary to wash the line in clean water with a bit of pure toilet soap. Then it should be rinsed and dried. If fishing the alkali waters of the West rain water should be used for washing the line. Care should be taken in oiling the reel to see that no oil touches the line. When the line is put away for the winter it should be kept in a dry, airtight place. If one intends to battle big fish it is best to buy a new line. In the case of a fly line, deer tallow is a good preservative and will add

to the life of the line. To protect flies it is a good plan to sneak them into the wife's cedar chest when she is not looking, but wrap the package carefully so no oily waste will stain milady's clothing. If a cedar chest is not handy place in a tight box with cedar shavings or a moth ball. If, in the spring, the trout and bass flies are flattened down with frowsy wings and disreputable appearance, each fly should be subjected to hot steam—perhaps from a teakettle, at a safe distance so as not to burn it. Instantly the bedraggled appearance will vanish, the wings will straighten up sprightly and the fly is rejuvenated. Any dull hook points should be sharpened at the same time. This is best done with a fine emery cloth or a jeweler's oilstone.

Go over the contents of your tackle box and see that everything is in good shape for the closed season. Wrap the loose hooks in an oiled rag and place in a tight container.

A good angler takes pride in his gear and spends much time tinkering with this and that, knowing that the secret of angling is well-running tackle.



This big fellow is the prize of a sportsman who respects his rod—M. E. Charleston, of Vancouver, with a Tyee salmon, caught in the Campbell River, in British Columbia.



A FOREST PAGE FOR BOYS AND GIRLS

Conducted by
WAKELIN McNEEL



SO MANY things happen in May to interest a boy or girl, or any lover of the outdoors, that it is truly the month of adventures. It is a fascinating month for hiking; bushes and trees are vibrant with life; early birds are arriving; fish are spawning. The trout season opens during this month in most of the Northern States. And what is so good for the soul of man or boy as to follow the laughing stream? Too, May is the Indian planting month. It is the time when young foresters will be planting trees in woodlots, on knolls, and on waste places on farms, school forests and areas laid waste by fire and ax—on places where trees may enjoy the chance to grow to maturity.

It is wisdom to know what to do, skill to know how to do it, and virtue to have the will to do it. The greatest of these is virtue. Every seedling that is planted should be well planted. Many states furnish coniferous seedlings without cost to boys and girls who meet certain requirements regarding places of planting and provisions for protection. Sometimes, seedlings of deciduous species are available. At present they can be purchased from commercial nurseries. Coniferous seedlings must be well taken care of. Their roots must not be exposed to sun and wind; nor should the roots be allowed to dry out in the bundle. If planting cannot be made soon after their arrival the plants should be "heeled-in." This is a method of keeping the plants in good condition until ready for planting. Select a shady, moist place, dig a trench deep enough and wide enough to hold the roots, then place the partially separated plants in the trench, cover well up to the crowns with soil and pack rather firmly. Any boy or girl interested in growing seedlings of deciduous species will find in Farmers' Bulletin No. 1123, "Growing and Planting Hardwood Seedlings on the Farm," all the information he or she will need for success in the undertaking. Why not set aside a part of the garden for growing seedlings this year?

Climbing pine trees often results in severe scoldings at home, or something much worse. Pitch is difficult to remove from clothing, as it won't dissolve in water. Some

"Come, choose your road and away, my lad,
Come, choose your road and away!
We'll out of the town by the road's bright
crown
As it dips to the dazzling day.
It's a long white road for the weary,
But it rolls through the heart of May—
Come, choose your road and away, my lad,
Come, choose your road and away!"

solvent must be used, unless plenty of soap and "elbow grease" are applied. When the sap of the coniferous tree is exposed to the air, some of the liquid readily evaporates, leaving the plastic substance we know as pitch. It closes up the wounds in trees and prevents the invasion of disease germs and fungus spores. When the root system of a coniferous seedling is exposed to the sun and wind, the sap in the tiny roots hardens just as it does in case of the exposed wound, and the mouths in the tiny roots close forever. Even though the utmost care is taken in planting and water is provided by the barrel, that seedling is doomed to die from starvation and thirst. Now, it is clear why so much care must be taken in handling seedlings, why they are "heeled-in," carried in buckets or pails with roots completely covered with mud or wet moss, and why it is best to plant on a cloudy or rainy day. Proper care in the handling of coniferous seedlings is the first lesson a boy or girl should learn.

In areas reasonably free from brush and stumps, furrows are plowed and the seedlings planted in them. The furrows reduce competition from grass and weeds, making planting easier, and reduce the hazard from ground fires. Moreover, there are the helpful influences of decomposing leaves

caught in the furrows. The general practice calls for furrows six feet apart with seedlings six feet apart in the furrows. In light soils a "spud" is the best kind of a hole-making tool. Sometimes a "spud" is made by flattening out the large end of a crowbar until it looks like a wedge four or five inches wide. In use, it is jabbed into the soil, the seedling placed into the wedge-shaped hole up to the crown, then slowly lifted until it is about the same depth it was in the nursery. This method spreads out the roots sufficiently. Now comes the most important phase of the whole operation—firming the soil around the roots. This must be done so well that there are no air spaces left around the roots. The heel is used in this firming operation. With a straight leg, knee stiff, apply the weight of the body through the heel to the soil surrounding the seedling. "Lots of beefsteak" is the slogan boys use often. This method of planting is referred to as the wedge-slit method. It is very properly confined to



"Come, choose your road and away, my lad!"
Come out—a bundle and stick is all you need to carry along.



An "old timer" teaches a boy ranger how to use the Biltmore stick.

sod can be laid back a little better than with the spud. In use, strike the blade of the mattox full into the ground, then raise the handle carrying the soil on the blade, twist it to one side and place the seedling upright in the hole. Then dump the soil held on the blade into the hole, and apply "beefsteak" through the heel to firm the soil around the roots. Two workers constitute a team, one to make the holes and the other to plant the seedlings. Poles with a piece of colored cloth flying at the top are set up to give direction to the planters. The hole digger sights along the poles and keeps a fairly straight line. A team of experienced boy rangers can plant an acre and a half in a short time under fair conditions.

In furrow planting with a spud the planter works alone. He carries the bucket of seedlings and the spud, makes the hole, plants the seedling and firms the soil. The sooner he perfects these operations the sooner he becomes a good planter. This is the way to reduce the operation to a habit. When you put down the bucket of seedlings, jab the spud into the ground and count one. On count two remove a seedling, count three place it in the hole, and on count four firm the soil around the roots with pressure applied through the heel.

Did you make a Biltmore stick according to directions given in the March issue of *AMERICAN FORESTS*? If so, you know how to measure the diameter of trees. One surface of your Biltmore stick should be marked off in inches. There is need for such a measuring stick every day in camp or on hikes. Fact is, such a measuring stick can be used as a hypsometer—an instrument for measuring the height of trees.

In making a Biltmore stick you were asked to get the distance between your eye and a stick held vertically at arm's length at right angles in front of the body. Knowing this length in inches, pace off an equal number of feet away from the tree, the height of which you wish to determine. For example, if the arm's length is twenty-three inches, pace off twenty-three feet from base of tree. With staff extended, sight at base and top of tree. The number of inches cut off by these lines of sight will be the height in feet of the tree, for each inch on the staff will represent a foot. If thirty-one inches is cut off the ruler by the lines of sight, the tree is 31 feet high. If the staff is not long

light soil, since heavy soils do not move well enough under pressure to close up the air spaces around the roots.

In heavier soils the mattox or grub hoe is the better tool. With it the

enough at this distance step off twice the distance, and then one-half inch will represent one foot in height. Readers who have taken geometry will understand that similarity of triangles is the method of computation involved.

With spring comes an invitation to every boy and girl to get out and enjoy the innumerable adventures and the delightful romances that the outdoors has to offer. Right now trees are in the spotlight. They are always in the spotlight to Grace Haynie of South Carolina. She finds them "gay and sparkling in the sunshine," delightfully "scarey" before a storm, "when the trees chant and rumble and murmur as if in warning." She finds "nothing more beautiful than pines laden with snow," unless it be a pine forest singing "its song of silence." If you listen closely you may hear it, "when all things are quiet." Then they seem "to whisper among themselves and communicate with the things of the air." It is very easy to tell that Grace's favorite tree is

the pine. And it would seem that she loves all the pines, for in her fine letter, parts of which we have quoted, she did not state what pine. Any pine is a moody tree and Grace knows their moods. How she would enjoy Burt Dahlberg's favorite tree that lines so many Wisconsin streams with columns of spires stretching heavenward, yet never getting very high—striving, yearning to be more than their powers render possible.

"My cabin in the woods," writes Burt Dahlberg, "is made of balsam logs, and has given me shelter on winter nights. Many times I have slept on a bed of balsam boughs. The balsam fir is the most popular Christmas tree because of its fragrance and its tendency to hold its needles longer. For these reasons I choose the balsam as my favorite tree."

So much sentiment is attached to the balsam that it enjoys a universal popularity. This in the face of the fact that outside of pulp it has no economic value.

The Norway pine, known to lumbermen as red pine, is the favorite tree of Floyd Reid, of Michigan. Floyd lives in the cut-over land, for he writes: "It is seen standing alone and it looks like a watchdog or a sentinel. It seems to be lonesome, and sometimes when I am lonesome I go to the Norway pine and sit in its shade."

(Continuing on page 319)



And, from a distance, to measure the height of trees.

DO YOU KNOW

- Why the 1930 growth ring in trees, in most parts of our country, will show less thickness than the average year's rings?
- That a fair-sized oak gives off as much as 150 gallons of water during a single summer day?
- That a forest is as good a cloud maker as a body of water of equal area?
- That a good windbreak in a northern winter is equivalent to transporting the farm home 250 miles to the south?
- That the United States is unrivaled in the number of distinct species of trees, having over 850, of which 180 have economic value?
- That it is estimated the original forests of our country were sufficient to make a walk one mile wide from the earth to the moon?
- That President Hoover's flair for open-air cooking is to fry bacon crisp in a long-handled frying pan and to scramble a few eggs in the bacon fat?

FOREST PEOPLE



The Keeper of the Presidents' Trees

Charles Henlock Has Cared for the White House Trees and Gardens for Forty-five Years

By PAULA V. GRAFF

ONE of the most admired of the many human characteristics of George Washington was his love for trees, shrubs and flowers. As the first President of the United States, before the charm of the present White House was completed, he felt the need of trees to keep him mentally fit for the proper administration of his office. The need was accepted by those who planned for the home of the Presidents that were to follow him, and down through the long years the Trees of the Presidents, as the great trees on the grounds of the White House are known, have with shrubs and flowers played no small part in the life of the nation as reflected through the greatness and the personality of the Presidents who dwelt beneath their boughs.

Perhaps a more intimate glimpse into the lives of the Presidents and their families and the trees and gardens of the White House can be found in the words of Charles Henlock, former chief of the Horticultural Division of the Office of Public Buildings and Grounds in the Nation's Capital, and for forty-five years the keeper of the Presidents' Trees. Mr. Henlock, on March 31, bowed to government regulations and retired after

a faithful service. "The Presidents and their families, like the rest of us," said Mr. Henlock as he mused over the past, "are extremely human when it comes to trees and flowers. When a day is nice and sunny Mr. and Mrs. Hoover have

their breakfast served in the gardens, under a very beautiful old magnolia tree. The Coolidges spent a lot of time out-of-doors, especially Mrs. Coolidge. Though, like Mrs. Hoover, she made no changes in the gardens, she loved them and gave a great deal of her time to them."

The veteran horticulturist paused at this juncture to smile reminiscently. "Mrs. Coolidge was very kind. If I would do something in the gardens or about the grounds that pleased her she wouldn't say she liked it in so many words, but would show her appreciation by doing some nice little thing for me."

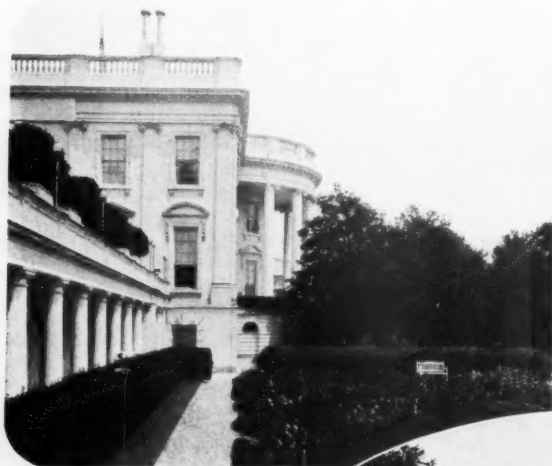
Of the Taft administration Mr. Henlock tells an amusing story. "When Mrs. Taft was our First Lady," he said, "she had a fence built along the west side, thinking it would insure a little more privacy. Then Mr. Wilson came in and war was declared. It was decided that some sheep should be imported as an economic feature. They would keep the grass clipped.



Mr. Henlock
In the greenhouses he loved
so well and tended so long.

But the best thing those sheep ever did was to eat up Mrs. Taft's hedge, along with a few other things. They were a nuisance, those sheep—but they were very pretty."

Few people realize the extent of the White House grounds and the great number of unusual trees, shrubs and flowers.



Early spring brings gay blossoms to the private garden of the Presidents.



According to Mr. Henlock, seventy-three trees surround the Mansion, framing its dignity with their beauty. While most of them are typically American deciduous trees, such as oak, elm, ash, maple, linden and beech, there are sixteen evergreens. Among the exotics are the mimosa, a tree whose very name conjures up the exquisite fragrance of its blossom, and the Japanese cherry tree with its delicately colored flower. From Japan there are also the flowering almond, the storax, the varnish tree, and the Japanese witchhazel tree. A willow adds its grace and a Persian lilac opens its blossoms in the summer.

On the grounds, too, is a beautiful white birch (*Betula laciniata*), the tree chosen nationally to honor motherhood. This tree, donated in 1924 by The American Forestry Association, was planted under the auspices of the District of Columbia Federation of Women's Clubs to honor the mothers of our Presidents. Another, planted the following year on the grounds of the Capitol, honors the mothers of the United States.

There are trees surrounding the White House that have been planted by the Presidents. Benjamin Harrison planted several trees in the spring of 1892. Near the west entrance of the north roadway approach is an American elm planted by Rutherford B. Hayes, in 1878.

"When Grover Cleveland first brought his young bride to the White House," said Mr. Henlock, "she planted a blood-leaf Japanese maple to commemorate their marriage. Theodore Roosevelt planted two beeches on the east lawn in 1904 in honor of George Washington, and McKinley planted a scarlet oak on the west lawn bordering the walk that leads to the executive offices. President and Mrs. Harding also planted a tree and it stands to the south of the east entrance—a memorial to the animals that perished in the World War."

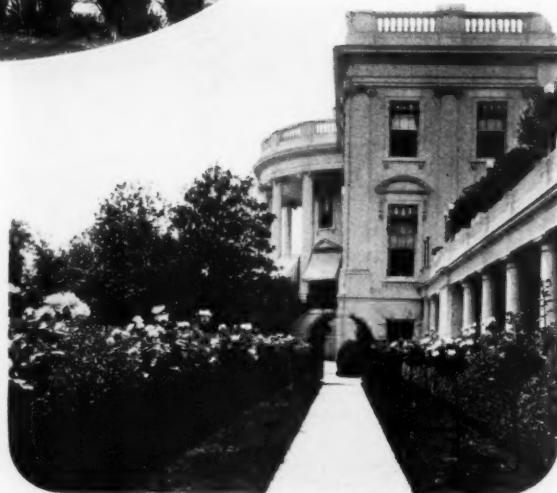
In the gardens of the White House Mr. Henlock has known the love held for flowers by many of the wives of the Presidents. With them he has planned the beauty of the gardens and merged their enthusiasm with his in their growth.

"During Mrs. McKinley's illness," he recalled, "the President each day would see that the finest flowers in the gardens were sent to her. He was a splendid man, magnificent in his gentleness to everyone. The first Mrs. Wilson was another who loved the gardens. It was impossible not to love and reverence her. She had me go to Princeton to see the gardens she had planned there. They were very beautiful, and she was rightfully proud of them. When I returned we decided to rearrange the east garden at the White House. Plans had been drawn, but they were too expensive to carry out, so we just arranged the garden according to our own views.

"A few days before she died I saw her seated in the west gardens, and she motioned me to her. She was a little sad as she said, 'Mr. Henlock, I feel that I will not live to see the gardens fully grown.' I tried to reassure her, but she seemed to know, and in a few days she passed on."

English born, Mr. Henlock entered upon his fascinating work as keeper of the Presidents' trees and gardens immediately upon his arrival in America, and he intends to remain here—in sight of the trees he has guarded and loved for nearly half a century.

"The people of Washington love their trees," Mr. Henlock concluded, "and they get greatly excited when they suspect they are to be killed or damaged. I recall when Mr. Harding was in the White House there was cause to move two



The walkway from the Executive Offices—flanked with rose trees.

In the oval above is shown the beautiful pool in the rear of the Mansion, near which the "Mothers' Tree" was planted.

trees in the front lawn that had been struck by lightning. We moved them early in the morning while it was quite dark, but the people found it out and there was a big stir about it."

The keeper of the Presidents' trees reflected upon this incident for a moment and then chuckled. "But it's best to have them like that."



Fred H. Kiser

Short Lessons in Photography for the Outdoorsman

Conducted by Fred H. Kiser

The Art of Composition

MANY people who use a kodak ask, "Why be bothered with technicality in making a few snapshots?" If that is the attitude, why be bothered with a camera and snapshots at all? This may seem rather harsh but it is prompted by a natural tendency to put forth my best effort at all times—whether at work or at play. The very fact that one owns and uses a camera proves its value for service and enjoyment. That it produces occasional good results despite a carefree attitude, should awaken one to greater possibilities in making pictures.

As I have stated, the kodak or camera is so simple in construction that to thoroughly understand its manipulation requires but a very few minutes. But it does need more individual consideration regarding objects, illumination, composition, and general atmospheric conditions in connection with its applied utility in making an exposure of all the picture elements before the lens.

The two most important requisites in picture making are lighting and composition. Any subject, whether portrait or pictorial, if properly lighted and composed, has real artistic merit. For in the display of these two most essential factors in picture form there is automatically produced gradation of tone, depth, balance and perspective.

In the April issue I endeavored to emphasize the need for highlights and shadows in all pictures—how they enhance composition or detract from it. I purposely avoided all detailed comment on the subject, however, feeling that a better understanding could be had if such remarks were coupled directly with an exclusive discussion on composition itself.

Recently, in reviewing a collection of more than three hundred amateur photographs, I found but four which could be said to have artistic merit. Most of them were lacking in central interest. Many were "flat," while others were ruined by bad contrast. Lighted subjects were made at the wrong time of day so that the shadows destroyed all converging

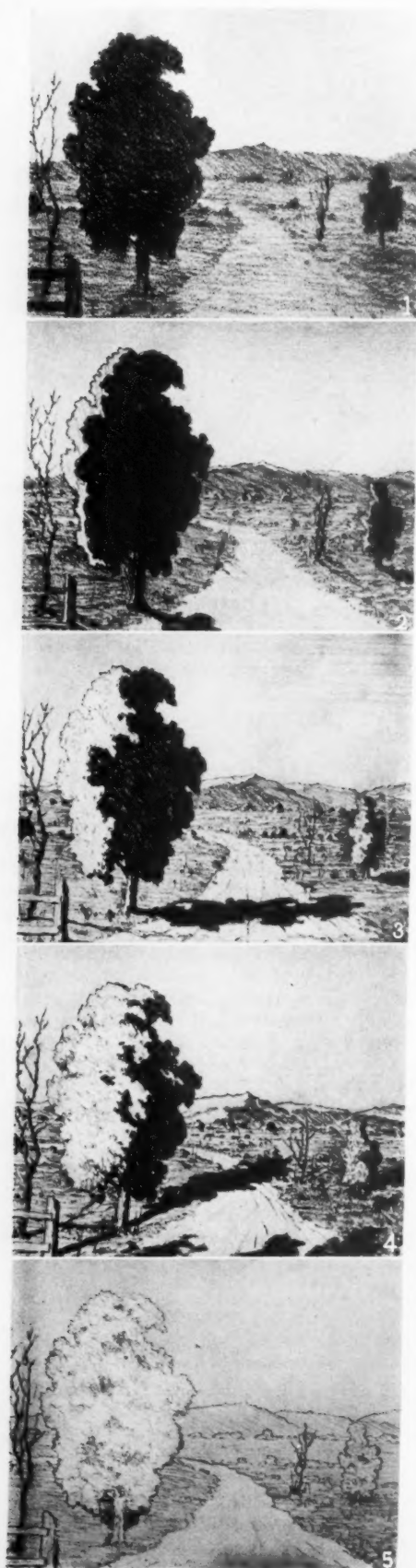
lines. There were those with "brush-heaps" in the sky—a limb with a few leaves and branches coming into the picture—for no purpose at all except to mar the upper or sky portion and jar the beholder. One naturally expects to find in a collection of this kind pictures which have logs, stumps, or rocks in the foreground that are all out of proportion to the rest of the setting. Such defects are caused either by carelessness or by misjudging distance and working too close to the object. There were many pictures where roads, trails or fences were featured, yet they led the eyes out of the picture instead of to the center of interest in it.

The laws of line and mass, extensive subjects in pictorial composition of any kind, must be understood and taken into consideration, at least in a slight degree, by the amateur photographer. They must be absolutely mastered by the professional.

The human eye unconsciously sees objects in certain definite shapes and lines that are pleasing, soothing and satisfying. They are pleasing because of balance and harmonious tones of light and shade, soothing because of simple curved lines which suggest ease and grace, and satisfying because our pictured expression leaves something to our imagination.

As the eyes are the center of interest in a portrait, so must there be a center of interest in a pictorial subject. It is most effective to one side of the picture, and there must be no object, shadow, highlight, or pronounced line which will detract from this particular spot. The setting must be a harmonious arrangement of line and tone so that the finished reproduction will gradually lead our eyes and mind to a place of rest.

At this point I shall leave composition long enough to discuss the amount of detail a photograph should have. All who know my work will testify that I am a progressive when it comes to photographic art, but never do I sacrifice detail to bring about results. I take issue with those in the photo-



graphic profession who, at the sacrifice of detail, are constantly trying to present something that has never been seen before. I am not in sympathy with the so-called "impressionist" operator, or with the makers of "soft-focus" or "fuzzygraph" types of pictures. I relegate all such pictures to the "freak" or "stunt" variety. It was never intended for the photographic lens to be used in this manner.

God gave me a good pair of eyes that see everything He created in its true form—clear and well defined. When I look at a tree at close range I see its trunk, branches, and leaves as individuals, not a mass of its component parts. It is true that some of the fine detail of the same tree is lost when I am at a distance, but its true form is clear cut against the sky nevertheless. I admire the sharp, clear lines of the building across the street, yet in a "soft-focus" it looks as though an earthquake was on, or the operator had the palsy. I will admit that the painter does not work in detail for the reason that he can not. Detail can not be created as it really exists by applying paint on canvas. It is merely suggested, usually by great gobs of pigment. I think I am right when I say that painters are working for a greater smoothness in their workmanship, and along with it will come more detail. But never can they hope to reach the perfection of the lens for absolute correct picture outline.

Perhaps you will wonder how you can render distance, depth and softness without resorting to some of the "freak" or "trick" methods of photography. There is only one answer—study your subject, strive for simplicity, compose properly, then make your exposure at the opportune time of day. Sunlight, if used at the right time, will give you all the softness and perspective necessary for an artistic and pleasing effect. For instance, you wish to record a setting that combines an interesting and somewhat prominent foreground with a mountain peak, say from five to ten miles away. The atmosphere is so clear and crisp that foreground and distance seemingly run together. Your exposure should not be made until the sun reaches a "point of separation" by casting a noticeable haze over the distant mountains. Then your registration will produce a picture of softness and great depth which cannot be equaled by any method of "freak" photography. By allowing the sun to play its part in my technique, I have been able to produce an effect of distance many times greater than that which actually exists.

To know when conditions are exactly right to produce the effect desired you must first of all be enthusiastic over the task you are about to perform. You must be susceptible to the emotion awakened by nature. You must feel keenly the dominating force of the setting you are about to record, then select those elements of simple form and line, and wait until the sympathetic light and shade moulds the entire landscape into one of pictorial grandeur.

To clearly establish in the minds of my readers some of the more simple but essential factors which must have careful consideration in landscape composition, I shall refer to the drawings illustrating this page. They feature principally a foreground shadow and its general effect upon the landscape to be photographed, insofar as composition is concerned.

No. 1 represents the photographic effect before the sun rises above the distant mountain range. An exposure made at this time of day would produce a flat and uninteresting photograph, just as the drawing indicates.

No. 2 represents the effect that would be recorded between 9:30 and 10:30 a. m. of the same day. The foreground, or most prominent shadow, runs at a direct right angle to the general scheme or plan of the composition. The shadow is a huge dark patch, most uninteresting, and immediately and unfavorably attracts at the expense of all other elements of the landscape which are pleasing. Nothing is so detrimental to the laws of good composition as dark right angle shadows, particularly when in the immediate foreground. With further reference to illustration No. 2, the highlights are harsh, with the possible exception of those on the distant mountain peaks. These do not jar quite so much because of their distance.

No. 3 represents an effect by an exposure made at exactly the right time of day—between 12:30 and 1 p. m. Notice that the highlights and shadows are balanced and more pleasing. The foreground shadow is now entirely different in form, and points into the center of interest of the picture—not across it. There still remains a

shadowed suggestion on the distant mountains, ample for a gradation of tone value.

No. 4 is about what might be expected from an exposure made later in the afternoon. The effect of balance in light and shade is lost, and the setting as a whole is flat and uninteresting.

No. 5 depicts the effect should the exposure be made about 5 p. m. The finished picture would be similar in appearance to one made under conditions outlined for No. 1, the exception, of course, being "all sunlight" instead of "no sunlight." In each case all gradation of tone is lost. Thus you may visualize the effect of highlights and shadows, particularly shadows, in composition.

It has been my pleasure to collect from time to time a series of amateur photographs that well illustrate good and bad points of composition, three of which are reproduced here.

The first, a reproduction from a 5 x 7 film, is a striking example of a mountain, but from an artistic standpoint the true pictorial beauty is lost because of the road in the foreground running out of the picture. The mountain, of course, is the center of interest but there are no visible lines leading to it.

The second, also, of a mountain, while made with what we term a "flat light," and has a rather uninteresting foreground, is a picture you would look at the second time because of the trail leading out and across the flat up to the center of interest.

The third picture, unfortunately, features a dead tree trunk in the foreground, which absolutely ruins what might have been a very beautiful picture. The photographer who made this exposure acknowledged that she could have changed her position and cleared the ob-

stacle, but in her hurry overlooked it. Remember this—*Don't be in a hurry when making a picture.*

I have seen many pictures ruined by the amateur who failed to visualize what a "brush-heap" in the sky would look like in the finished picture. There seems to be a fad right



The true pictorial beauty here is lost because the road in the foreground runs out of the picture.



Here the trail leads to the mountain, the "center of interest," and, despite a "flat" light, the picture holds attention.



The dead tree trunk in the foreground ruins what otherwise would have been pleasing composition.

now to bring into sky portions of pictures, limbs of trees or some straggling foliage. In California operators seem to think it "unique" to drape the sky with palm leaves.

Whenever I see pictures of this character I attempt to visualize the power just out of the frame which supports these obnoxious features—whether there has been rigged some sort of support to hold these limbs or leaves in position, or whether a number of men hold them in position with long poles until the exposure has been made.

Of course I want to see limbs of trees stretching out across the sky, but I also want to see their natural support in the foreground and running up along the side of the picture. Nothing is quite so picturesque as a landscape framed with an imposing, properly lighted tree-trunk, throwing out some of its upper branches across the sky. So in the future, when you wish to incorporate tree branches or foliage in the upper part of your picture, include the main part of the tree with it. If this is not possible, do not waste your film.

Constantly keep in mind that a balanced arrangement of the parts of a picture should form one harmonious unit. Learn to see things pictorially, and glory secretly in it. Be thrilled by every sight, but determine only to interpret it photographically when conditions are right. Strive to produce every picture with the thought in mind of exemplifying the mysterious beauty that delights the soul.

ANNUAL REPORT



FOR 1930

THE AMERICAN FORESTRY ASSOCIATION

BY OVID BUTLER, EXECUTIVE SECRETARY

ON DECEMBER 31, 1930, The American Forestry Association rounded out its fifty-fifth year. The mere recording of a single year's effort, which is the purpose of this report, is at best an inadequate expression of the value or significance of the Association's work. Education wins by sustained effort and measures results only with the passing of years. What today may seem to some an activity of limited potentiality may in the course of time unfold into a movement of great national importance.

When in 1896 The American Forestry Association found the right way to propose a rational forest policy for the public lands of the United States, it is doubtful if any man at that time foresaw that the action would, in less than a quarter of a century, bring into being a National Forest system that today guarantees protection and preservation to 160,000,000 acres of publicly owned forests.

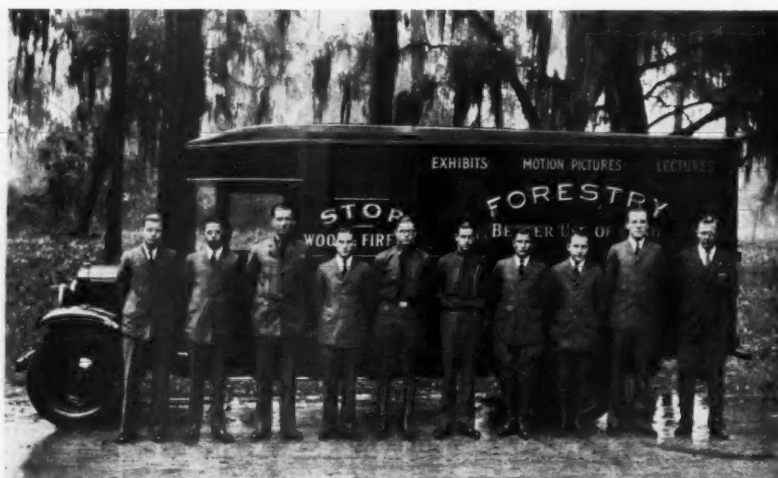
It is equally unlikely that the small group of men in North Carolina who, in 1905, asked The American Forestry Association to take over the task of bringing about Federal forest reservations in the southern Appalachians entertained more than a hope of limited success. Nevertheless, six years later, the Weeks Act was an accomplished fact, and out of that legislation has come not only numerous National Forests throughout the East but the present system of cooperative fire protection whereby Federal, state and private agencies are today giving organized protection to 234,000,000 acres of state and private lands.

The Association began the year 1930 with probably the largest and most diversified program of activities in its history. The year's effort has been concentrated on carrying forward that program, the chief features of which are the educational campaign against woods-burning in the South, development of a National Tree Planting Project with the Boy Scouts of America, the stimulation of forest knowledge and activities among children in the various states, improvement and wider distribution of the Association's magazine, and the promotion of Federal and state forest legislation most needed to advance forestry and to serve public interests through forestry.

A new feature of the year's activities was the Association's joint sponsorship of a National Timber Conservation Board for the purpose of dealing with the intricate problem of overproduction in the forest industries and its effect upon the conservation of the nation's forest

resources. The creation of such a commission was urged upon President Hoover in May, and the board was formally created by the President in December. Three directors of The American Forestry Association were appointed as members of this board—Mr. George D. Pratt, Dr. John C. Merriam, and Mr. Louis J. Taber. A fourth director, Mr. Henry S. Graves, was named upon the advisory committee of the board. If this commission can, in the course of time, bring about an equitable adjustment of the cutting of our forests and the demands of our people for wood, history will mark it as having rendered a notable service to the cause of conservation.

In respect to the President's Commission on Conservation of the Public Domain, appointed in 1929, the Association has followed a policy of watchful waiting. This commission, of which James R. Garfield is chairman, has spent the year endeavoring to formulate recommendations as to the policy which the Government should follow in the administration and disposal of the unreserved public lands of the United States. As a contribution to this public question, the Association has published through its magazine numerous articles and has taken the definite position that the primary question at stake is the protection of the Public Domain watershed lands and



The "Dixie Crusaders."

Field men who are campaigning against woodsburning in the South. They have carried the message of forest and wild life protection to over two million men, women and children in the heart of the worst forest fire country in the nation. No country school or woods camp is too remote for them to reach with their fleet of eight motion picture trucks.

their restoration to highest usefulness to the end that public interests in controlled grazing, watershed protection and the prevention of soil erosion will be adequately met.

During the year the Board of Directors held four meetings. The more important action taken at these meetings is summarized below: Approval in principle of the National Park standards as promulgated by the Camp Fire Club of America.

Approval by letter ballot of the Association joining with the National Lumber Manufacturers Association in urging upon the President the appointment of a Timber Conservation Board.

Disapproval of the Englebright bill designed to extend Federal aid to the states in the sum of \$5,000,000 a year for ten years for the purchase of state parks.

Passage of resolution urging formulation and development of a recreational policy with adequate financial support to assure the highest use of National Forests.

Endorsed establishment of a research institute in forestry as recommended by Messrs. Bailey and Spoehr with instructions to Messrs.

Pratt and Graves to convey this endorsement to the Rockefeller Institute.

Authorized appointment of a committee to study for the problem of fundamental research in forest economics and to endeavor to secure financial aid for such an inquiry.

Restated the Association's position in respect to the need of expanding the government's work in forest acquisition in the East.

Formally recognized the seriousness of the problem of soil erosion and voted that the Association make an effort to bring about a national conference on erosion at the earliest practicable date.

Voted that the Association should look into the effects of Russian importation of forest products upon sustained stumpage values and upon the welfare of forestry and conservation in this country.

Voted that the Association's educational work as typified by the Southern Forestry Educational Project should be continued and expanded into other Southern states to help relieve forestry and wild life propagation of its handicap of woods burning.

Endorsed the creation of a national reservation in the Florida Everglades to preserve the unique tree and animal life.

In reviewing the different projects and activities, they will be grouped as in past reports as follows: (1) Education, (2) Magazine, (3) Legislation, (4) Membership, and (5) Operation.

EDUCATION

(1) THE SOUTHERN FORESTRY EDUCATIONAL PROJECT

The Association initiated this project in 1929 in cooperation with the forestry departments and associations of Florida, Georgia and Mississippi. It represents the most intensive and concentrated effort in popular forest education that has thus far been attempted in the United States. It was planned as a three-year project and for the work a sum of approximately \$170,000 was raised by private subscription and by forest agencies in the states mentioned.

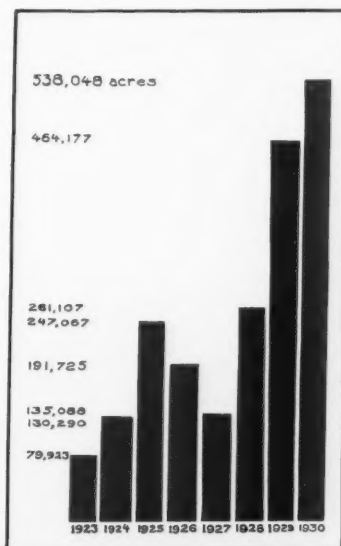
Visual education is the basic method employed in the project. This is being carried out by the use of motion-picture trucks operating systematically county by county, giving forestry shows, lectures and exhibits, and distributing forestry material at schools, county fairs and other meeting points in rural communities. The object has been to reach the people who do the woods burning and to bring home to them their own personal and community interest in stopping woods burning and thus keeping forests and game upon their lands.

During the year just closed, the eight motor trucks and the personnel of nine men employed upon the project have been steadily and loyally at work. At the close of the year this crew of forestry crusaders had given 6,274 motion-picture shows and lectures, attended by 986,000 persons, of whom approximately one-third were adults and two-thirds children. Total distribution of forestry material in the form of pamphlets, book covers, school rulers, et cetera, totaled in round numbers 1,200,000 pieces. The trucks covered 2,401 miles. In addition to picture shows, 206 forestry exhibits have been set up at county fairs, with an attendance of over one million rural people. In brief, the project up to December 31 last had carried forestry in popular and graphic form to over two million men, women, and children in the heart of the worst forest fire country in the nation. A new feature of the year's activities was extension of the educational work to South Carolina, a State that is just beginning to realize the importance of forest productivity in relation to state welfare. Cooperation with the State Forestry Commission was arranged in July, and field work began with three trucks when schools opened in

the fall. This extension was made possible by the fact that cooperation with the State of Georgia was necessarily terminated on July 1, due to the failure of the Georgia Forestry Association to supply its portion

of funds for work in that state. In undertaking this project it was the thought of The American Forestry Association that by thus extending to the states the assistance required in carrying out an intensive educational campaign against woods burning during a period of three years, the work would show sufficient results and stimulate sufficient interest to enable the states to continue it as long as needed. The American Forestry Association's cooperation will therefore end July 1, 1931, but present indications are that work will continue in both Florida and Mississippi by the states themselves.

At its meeting on December 18, 1930, the Directors of The American Forestry Association voted to continue its policy of extending help to individual states in organizing and carrying out needed educational forestry campaigns. To this end it was decided that an effort will be made to raise funds and initiate a new project in other Southern states. This effort will be made during the spring of 1931. Based upon results already coming to the surface in those states where the work has been under way for two and a half years, it is believed that woods burning in the South can, in a reasonably short time, be largely eliminated by intensive educational effort of the kind the Association is carrying out.



The Association has worked untiringly for more National Forests in the East. Chart shows steady increase in acreage acquired annually by the Federal Government since 1923.

(2) THE NATIONAL NUT TREE PLANTING PROJECT

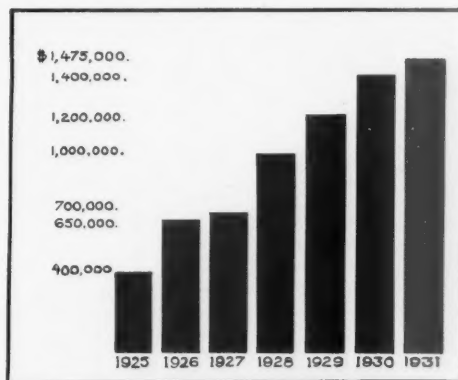
This project was made possible in the fall of 1929 by the Association raising \$10,500 to finance the work contemplated through a period of five years. The purpose of the project is to furnish organized and expert assistance to Boy Scouts in perpetuating America's walnut, hickory nut and other native nut trees.

It is a cooperative undertaking in which the cooperators are the Boy Scouts of America, The American Forestry Association, the United States Department of Agriculture and the American Walnut Manufacturers Association.

The project was organized early in 1930 with a council of four men, each representing one of the cooperators. Plans were based upon the idea of interesting Boy Scouts throughout the country in collecting

native nuts in the fall of the year from trees growing on historical grounds and redistributing the nuts to other Scouts for planting. The collection of an initial supply of nuts was the first essential step. Despite the poor nut crop due to the summer's drought, a supply of nuts was nevertheless collected from walnut trees growing at such historical points as Mount Vernon, Arlington Cemetery, Monticello, Camp Roosevelt, Gettysburg, the grave of Patrick Henry, Thomas Edison's birthplace, Admiral Byrd's old home, the battlefield of Honey Hill in South Carolina, and the grave of Nancy Hanks.

These nuts were shipped to Washington to be stratified during the winter by the Department of Agriculture. In the spring of 1931 they will be distributed for planting by Boy Scout troops in different parts of the country. In view of the fact that 1932 is Washington's bicentennial, plans are being made to cooperate with the George Washington Bicentennial Commission in having descendants of Mount Vernon walnut trees planted on the state capitol grounds in every state in the Union and on suitable grounds in many



Better protection of our forests from fire is a major endeavor of the Association. Organized public demand is winning results. Chart shows annual appropriations by Congress for cooperative fire protection since passage of Clarke-McNary Act.

foreign countries as a bicentennial observance in 1932.

(3) STATE FORESTRY CONTESTS

To stimulate interest in trees and an appreciation of the value of forests among children in every state, bronze medals were made available by the Association in 1929 as yearly prizes for winners of state

forestry contests. The character of the contests is left to the local agencies sponsoring them. During 1930 contests were completed and medals conferred upon winners in fourteen states as follows: California, Connecticut, Idaho, Iowa, Louisiana, Maryland, Massachusetts, Mississippi, New Hampshire, New York, North Carolina, Tennessee, Wisconsin and the District of Columbia.

About fifty percent of the contests were for essays on some phase of forestry. The remainder called for actual accomplishments by boys and girls in forest planting, forest care, or the preparation of forestry material. For example, the contest in the District of Columbia, participated in by over fifteen hundred children, was for the best forestry notebook. The work of the children in this contest was so outstanding that the notebooks were placed on exhibition for several days at the New National Museum in Washington.

At the close of the year contests were uncompleted in Alaska, Michigan, Minnesota, New Jersey, North Dakota, Oklahoma, and Utah. These contests will be repeated from year to year.

(4) MAGAZINE SCHOOL SUBSCRIPTIONS

The policy of interesting the membership in placing the magazine in schools for the educational use of teachers and children was expanded considerably during the year with the result that the magazine is now going into many schools and is serving not only to interest teachers in forestry but is supplying them with information and illustrations which they can use in their school work. The value of these school subscriptions was well brought out in the forestry notebook contest in the District of Columbia. The children had drawn heavily upon *AMERICAN FORESTS* for both information and illustrations used in the preparation of their notebooks.

The school magazines are furnished at a price of two dollars for nine months, and the response of the membership in underwriting these subscriptions has been most gratifying. For example, one member sent a check for \$500 which was used to place the magazine in 250 country schools in South Carolina where the need for forestry education among the younger generation is very great.

(5) PUBLICITY

The past year's budget provided for an expansion of the Association's general educational publicity carried on through newspapers, magazines and other news channels. As a result, publicity during the first six months showed a material increase, but on July 1, owing to the need of economy, it was necessary to curtail the work radically. Despite this curtailment during one-half of the year, clipping service returns indicated that for the year as a whole there was a two per cent gain in the amount of forestry material issued by the Association published in newspapers and magazines throughout the country. A special effort was made to disseminate material designed to arouse the general public against forest fire, and this class of material shows a gain of almost twenty-five per cent in point of space given it by the newspapers. Forest and wild-life material disseminated by the Association showed a gain of six per cent.

During the year, approximately 900 newspapers with an aggregate circulation of twenty-two million readers used the Association's educational publicity material. As nearly as it is possible to estimate from our press clipping service, which is incomplete, an average of approximately 163 columns of forestry and conservation material furnished by the Association were used by newspapers every month during 1930.

MAGAZINE

The Association's magazine is its strongest asset as a medium for (1) the dissemination of forestry and conservation information to the general public; (2) the open discussion of controversial forestry questions and the molding of intelligent public opinion; (3) arousing the interest and support of the laymen in forestry and related questions;

(4) directing public attention and action to urgent forestry situations and projects; (5) keeping the membership always in close touch with forestry needs and developments and binding it into a well-informed, organized and expressive conservation group, and (6) giving national expression to the Association's views on conservation proposals and questions affecting the public interests.

While the circulation of the magazine is not as great as the importance of the forest field demands, it nevertheless has won national recognition and unquestionably is a strong influence in the conservation world. Its articles are widely reprinted and quoted by the press and other publications, and its circulation extends into every state in the Union, four possessions, Canada and thirty-nine foreign countries.

Constant effort has been made to improve the magazine from year to year as increasing income warranted. This policy was followed in 1930 when plans were made and approved for a modernization of type and make-up and for a change in name from *AMERICAN FORESTS* and *FOREST LIFE* to *AMERICAN FORESTS*. These changes went into effect with the January, 1931, issue, and an immediate and favorable response came from the membership, reflecting a feeling that the magazine in point of appearance, make-up, and contents is a credit to the Association and to forestry.

It is believed that the magazine in its present form, if placed on the newsstands would hold its own and win many new friends to forestry and new membership support to the Association. At the present time, limited funds make this impossible, except in a very small way. As has been previously pointed out, there is a large potential field for the Association's magazine. Members and outsiders frequently write that the magazine should have a circulation of several hundred thousand as a minimum. There is unquestionably a potential field of this magnitude, but with its present limited budget, the magazine cannot

hope to take advantage of it. Even in its present form, funds are not available to promote its circulation, so that the Association is in the position of having a highly creditable product but without the means of aggressively marketing it. Furthermore, its editorial budget is inadequate to attract many writers and to permit the use of four colors on its cover every month.

Magazine production costs in 1930 were \$56,961—an increase of approximately \$2,563 over 1929. This increase was absorbed by the special National Forest number issued in July in recognition of the twenty-fifth anniversary of the National Forests. The number was an unusually expensive one, costing \$2,700 over the normal current cost of any issue.

LEGISLATION

Promotion of needed legislation has, from the inception of The American Forestry Association, been one of its most important and constructive activities. No review of the forest movement in this country can evade the fact that the greatest progress in American forestry has come through constructive Federal and state legislation. It is the basis of the forestry activities of the Federal Government and of the forty-five states now engaged in forest protection, education and administration.

Through the long period of forestry development in this country, the Association has been a leading agency in forging our Federal forestry laws and in promoting Federal appropriations with which to carry them out. This work is now conducted through the office of the Association's forester, a large portion of whose time is given exclusively to it.

During the past year the Association worked for and helped to secure the passage by Congress of the following conservation acts:

- (1) The Vandenberg-Knutson Act, providing funds for an expansion of forest planting on the National Forests, and for adequate care of timber sale areas on National Forests.
- (2) The Shipstead-Nolan Act, providing for the preservation of wilderness areas and a coordinated plan of recreation and forest



The National Nut Tree Project.
Boy Scouts busy gathering walnuts on the historic grounds of Mount Vernon.

management in and surrounding the Superior National Forest in Northern Minnesota.

(3) The Clarke-McNary Act of 1930, originally sponsored by the Association as the Woodruff-McNary Act, authorizing appropriations of \$3,000,000 a year for the fiscal years 1932 and 1933 to purchase forest lands in the Eastern United States as authorized by the Weeks Law.

(4) The Colton-Oddie Act, authorizing \$12,500,000 for forest roads and trails during the fiscal years 1932 and 1933.

(5) The plant patent law giving the originators of new tree and plant species the right to patent their product.

(6) Norbeck-Leavitt Act, authorizing a ten-year cooperative program for the eradication and control of predatory animals injurious to wild life, live stock and agriculture.

The Association also rendered direct and valuable services in bringing public support behind needed increases for forestry work by the Federal Government. In this field the past year shows gratifying progress in that the total appropriations for the Forest Service were increased by almost \$3,000,000—the largest single year's step-up in the history of the Service.

Cooperative fire protection under the Clarke-McNary Act and forest acquisition have been the Association's major projects in the legislative field. Last year Congress granted an increase of \$300,000 for cooperative forest-fire protection, bringing the total appropriation for that work to \$1,700,000 a year. Despite the strenuous efforts of the Association, however, no increases were granted for forest acquisition, but the appropriation of \$2,000,000 a year, set by the McNary-Woodruff Act, sponsored by the Association a few years ago, was held, against an inclination on the part of the President and the Bureau of the Budget to curtail this work. In connection with the cooperative forest-fire protection work, it is interesting to note that the appropriations by Congress since 1925 have increased from \$400,000 to \$1,700,000, or 425 per cent, and that during the same period the area of forest lands to which organized fire protection has been extended has been increased by 46,000,000 acres.

In addition to the foregoing, the Association has been active in promoting the passage of the following bills which failed to pass.

(1) Englebright bill, H. R. 3245, providing for better forest-fire protection for the National Forests. Senator McNary's version of this bill, S. 3594, passed the Senate on June 2.

(2) The National Arboretum bill, S. 4586, authorizing \$200,000 for the enlargement and development of a national arboretum in the District of Columbia.

(3) The Frazier-Leavitt bills, to create Indian forests on the Colville, Klamath, Warm Springs, and Yakima Reservations.

(4) Oddie-Englebright bill to control emergency insect infestations on National Forests.

(5) Hudson bill, to control the discharge of oil into the coastal navigable waters of the United States.

(6) Norbeck-Andresen bill, extending protection to the American eagle.

(7) McNary-Haugen bill to permit the leasing of not more than 80 acres of National Forest land for recreational, scientific, and commercial purposes, and to authorize the Forest Service to develop and make available the recreational and educational facilities of the National Forests.

During the course of the year, the forester arranged and represented the Association at the following hearings at which individuals and groups interested in forestry were given an opportunity to appear in support of needed legislation bearing upon forestry and conservation:

(1) January 24-25. Senate subcommittee on agricultural appropriations. Pertained to needed economic studies in forestry.

(2) February 3, 4 and 10. House Committee on Agriculture.

Hearings on the Knutson forest planting bill, and on the reenactment of the Woodruff-McNary law for forest purchases.

(3) March 10, 12, 13. House Committee on Agriculture. Hearing on the need of strengthening the fire-protective system of the National Forests.

(4) February 4, 5, 6, 7, 11, 12 and 13. House Committee on Public Lands. Hearing in support of the Shipstead-Nolan bill, providing for preservation of the wilderness, recreational and wild-life values of the Superior National Forest.

(5) June 17. Hearing before Secretary of Agriculture Hyde in reference to appropriations to more fully meet forestry needs.

(6) September 12. Hearing before the Bureau of the Budget for the same purpose.

(7) October 1. Hearing before the Bureau of the Budget to urge support for National Forest acquisition in the East.

Through the Forester's Office assistance was also rendered to a number of states in furthering needed state forestry legislation. The

Association's forester spent several weeks in Arkansas in an effort to stimulate wider public interest in forestry and to organize public support for the creation of a state forestry department.



On the "Inside"—At One of the Movie Shows.

The tense interest indicates the impression being made by the forestry picture "Pardners"—one of the educational reels of the Southern Project.

membership is approximately fifteen per cent. The loss in 1930 was twenty-six per cent, or eleven per cent above normal.

OPERATION

The operating budget approved for 1930 authorized expenditures totaling \$119,675. This was based upon an estimated income of \$128,000 of which \$8,000 would be due the Endowment Fund as its share of new life and patron membership dues. Early in the spring it became apparent that this expected income would not be realized because of the effect of business conditions upon membership support. Expenditures were therefore curtailed at every point possible. By mid-year a deficit in the year's operation seemed likely despite strictest economy. During the last six months of the year, however, this threatened deficit was avoided.

The total expenditures for the year amounted to \$110,839.21; the total income, \$116,718.85, and the resulting surplus, \$5,879.64. Of this surplus \$5,446.66 is obligated to the Endowment Fund income from new life and patron members and profit from reinvestment of securities. The net operating surplus, therefore, was \$432.98.

The operation of the Association for 1930 is summarized below:

EXPENDITURES		Expenditures During 1930
(1) General administration	\$28,492.91	
(2) Magazine	56,961.20	
(3) Membership solicitation	10,436.02	
(4) Educational publicity	5,681.66	
(5) Forester's office	9,267.42	
		\$110,839.21
INCOME		Income 1930
(1) Membership dues	\$70,530.66	
(2) Advertising	15,833.63	
(3) Circulation	1,122.75	
(4) Interest and bequests	11,380.12	
(5) Sales of reprints, etc.	215.52	
(6) Donations	612.00	
(7) Forester's Office	9,144.17	
(8) Life membership fees (1/2 allotted for operating income)	2,433.34	
(9) Life membership fees (3/4 allotted to Endowment Fund)	4,866.66	
(10) Profit on securities (Endowment Fund)	580.00	
Total income		\$116,718.85

The financial statement given above is for the Association proper. It does not include expenditures for the Southern Forestry Educational Project and for the National Nut Tree Planting Project. These projects being cooperative, their funds are handled separately from Association funds proper. Total income and disbursements to December 31, 1930 for the Southern Forestry Educational Project, whose fiscal year ends June 30, are shown below:

CASH RECEIVED AND CONTRIBUTIONS RECEIVABLE	
Cash received	\$171,974.71
Contributions receivable	15,486.84
	<hr/> \$187,461.55 <hr/>
SUMMARY OF ASSETS AND DISBURSEMENTS AS OF DECEMBER 31, 1930	
Cash on hand	\$14,329.50
Advance	152.16
Contributions receivable	15,486.84
	<hr/> Total assets
	\$29,968.50
Disbursements:	
1928-1929	\$61,492.58
1929-1930	60,127.42
1930-1931	35,873.05
	<hr/> Total to date
	\$157,493.05
	<hr/> \$187,461.55 <hr/>

The Association is custodian of the funds raised for the National Nut Tree Planting Project. Income and expenditures on account of this project are shown below as of December 31, 1930:

Amount collected (with interest)	\$8,194.16
Outstanding pledges	2,345.00
	<hr/> Total for five-year project
	\$10,539.16
(Allocated for expenditure 1930: \$2,000.00)	
Actual expenditures during 1930	1,177.24
	<hr/> Net balance for remaining four years of project
	\$9,361.92

BUDGET FOR 1931

For 1931 the operating budget recommended for the Association proper calls for expenditures totaling \$115,065. The income is estimated at \$119,800, of which \$6,666 will be payable to the Endowment Fund, leaving an estimated operating income of \$113,134. The possible deficit of \$1,931 shown by this set-up is warranted by the greater effort that is needed to hold and increase our membership and by the need of continuing our work as economically as possible without disrupting too greatly our different activities.

THE YEAR AHEAD

The activities reviewed in the foregoing pages form a concurrent program for 1931. Only one project will be completed during the coming year—the Southern Forestry Educational Project—and in view of the fact that it is the plan to organize and finance a new project, the year ahead will continue to call for the maximum efforts of the Association's working staff. No new projects are, therefore, recommended for 1931, but there are certain features of the present program that need pointing out and emphasizing for particularly aggressive action and special attention. These are summarized below:

(1) FIRE PROTECTION

Building adequate fire protection for the country's forest lands through educational and legislative efforts will continue to stand as one if not the foremost activity of the Association. A concentrated drive should therefore be made to further increase the appropriation under the Clarke-McNary Act for forest-fire cooperation by the Federal Government, states and private timberland owners. The present appropriation is \$1,700,000; the act authorizes \$2,500,000 and the full authorization, as quickly as possible, should be the Association's goal.

The Clarke-McNary Act provides fire protection primarily to state and private forest lands. Better fire protection must also be provided for the National Forests. This is contemplated by the Englebright bill still pending in Congress. A special effort should be made during 1931 to move this bill forward to passage.

(2) SOIL EROSION

Soil erosion has become a national menace on a par with forest fire. The Association should take aggressive leadership to bring the situation and its causes home to the public and to promote

national and state legislation that will serve to remedy the public and private losses resulting from soil erosion. A bill shortly to be introduced in Congress by Representative Ketcham of Michigan will provide that the erosion problem be dealt with by the Federal Government and the states through a plan of cooperation similar to that in effect under the Clarke-McNary Act. The Ketcham bill when introduced should have the Association's support.

(3) FEDERAL ACQUISITION OF FOREST LAND IN THE EAST

A new program for forest acquisition must be set up by the Association in 1931. This is essential from two standpoints; first, because the present authorization of Congress will expire the coming year and, second, because the work has reached an impasse that can only be broken by a new and more dramatic program. A suggested new program will be submitted for the Board's consideration at its first meeting in 1931.

(4) RECREATION ON THE NATIONAL FORESTS

The Board has already declared itself for the development of an adequate recreational policy for the National Forests. Provision has been made for the creation of a committee of the Board to determine a course of action. Because of the great importance of the problem, the Association's program for carrying into effect the principles enunciated should be developed and clearly set forth.

(5) GENERAL LEGISLATION

All of the foregoing subjects involve development of policies, educational activities, and promotion of new legislation. In addition the Association's help must be given to the pending legislation and to securing needed increases for forestry work already authorized by existing acts.

(6) TIMBER CONSERVATION BOARD

The work of this board will get under way early in 1931 and the Association should stand ready to give it all the help within its means. Official recognition of overproduction as exemplified by the creation of the board offers an excellent opportunity to better acquaint the public with the problems of the forest industries and to enlist its support of sound, remedial action.

(7) NATIONAL NUT TREE PLANTING PROJECT

The success of this project hinges primarily upon the collection of adequate nuts during the fall of the year. An insufficient supply was provided last fall, and a much larger supply must be obtained in the fall of 1931.

(8) STATE FORESTRY CONTESTS

Thus far these contests have been started in twenty-one states. The remaining twenty-seven states have not taken advantage of the Association's help to stimulate forestry interest among boys and girls and every effort must be made to enlist their action.

(9) MAGAZINE

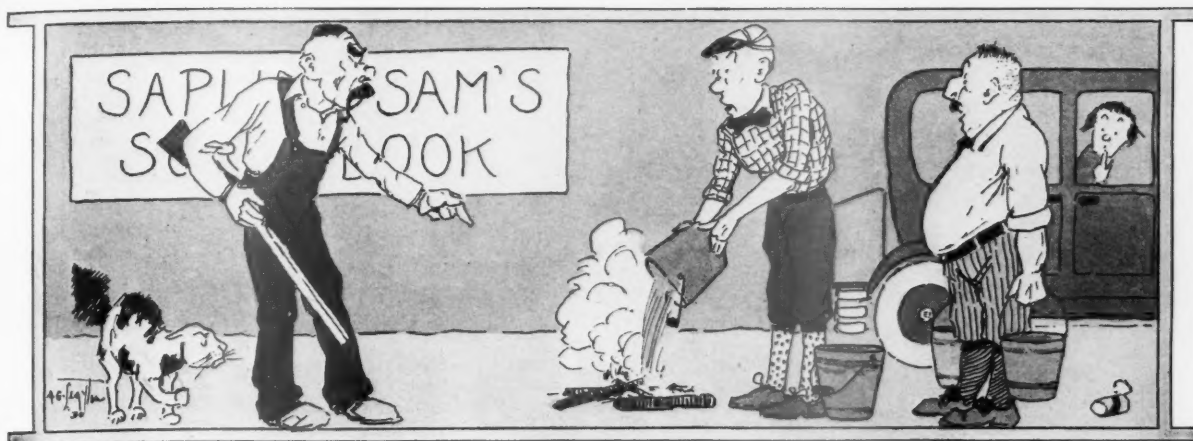
In view of the well-recognized need of the magazine for a larger budget in order to attract a higher type of editorial matter and to promote a wider circulation, a special committee of the Board should be formed to see if ways and means cannot be formulated whereby a fund may be raised for this purpose.

(10) BUILDING FUND

No progress has been made on this project during the year. It is hoped that during 1931 the Building Committee may find it possible to meet and map out a definite course of action whereby the Building Fund will take definite shape.

In concluding this report, the Secretary desires to express his appreciation to our President, Mr. Pratt, to the members of the Board for their interest and help during the year, and to the members at large for their sustained support during a difficult period. He also desires to commend most highly the loyalty and industry of the Association's staff. It has met the stress of the time with fine spirit.





Always the Early Bird

And the birds came north much earlier this year. They wanted to get the best places before the tree-sitting season starts.—*Judge*.

Wild Life Blues!

"The most popular spring furs are blue foxes," says a fashion note. We had no idea the depression was felt by foxes.—*Life*.

Thorny Crop

Little Willie had gone to bring the kittens in. His father, hearing a shrill meowing, called out: "Don't hurt the kittens, Willie!" "Oh, no," said Willie, "I'm carrying them very carefully by the stems!"—*Royal Arcanum Bulletin*.

Candor

The wild geese, ducks and sandhills are appearing in the small bodies of water in Burnet County, and winter is here at last, although the weather is almost like spring at this writing. But for whisky, pistols, fleas and blue northerns, Texas would be a Paradise on earth.—*Burnet (Tex.) Bulletin*.

Sights for All

Berlin tourist (in Bavarian mountains): "What is the chief thing to be seen here?" Native: "For a person from Berlin, the mountains. For the natives, tourists from Berlin."—*Ulk*.

What Fur?

"I was examining my fur coat today."
"How is the old rabbit skin?"
"In the mink of condition, my dear."—*Life*.

Too Fast

Dr. Millikan, the scientist, has resumed his experiments in California to determine the speed of light. All we know is that it usually gets here too soon in the morning.—*New York Evening Post*.

The Mystery!

The Rapidan, President Hoover's fishing stream, is to be restocked with trout and bass. It is not known what became of the fish that were put in there last spring.—*Life*.

Anything to Please

Diner: "Have you any wild duck?"
Waiter: "No, sir; but we can take a tame one and irritate it for you."—*Tit-Bits*.

Well Trained

"Say, is your dog clever?"
"Clever! I should say so. When I say, 'Are you coming or aren't you?' he comes or he does not."—*Harvard Lampoon*.

Now We Understand

Four hundred different kinds of fleas are known to science, says an information note, and when we see how busy the acquaintance with just one kind keeps old Rover, we don't wonder that science is so active.—*Boston Herald*.

Easy Prey

In Ontario there is a standing offer of \$25 bounty for each dead wolf. All you have to do these days is open the front door and blaze away.—*New York Evening Post*.

A Handout to the Mosquito

The natural food of the mosquito, a science note points out, is the sap it finds in leaves—and, also, we should think, the one it finds holding hands on country lanes after dusk.—*Boston Herald*.

The Futility of It

"Groundhogs," we read, "were on earth 30,000 years ago." Imagine being just one groundhog after another for 30,000 years.—*Life*.

Squeezing By

"What's grapefruit?"
"Strictly speaking, it's a lemon that's been given a chance and taken advantage of it."—*Tit-Bits*.

Catalogued

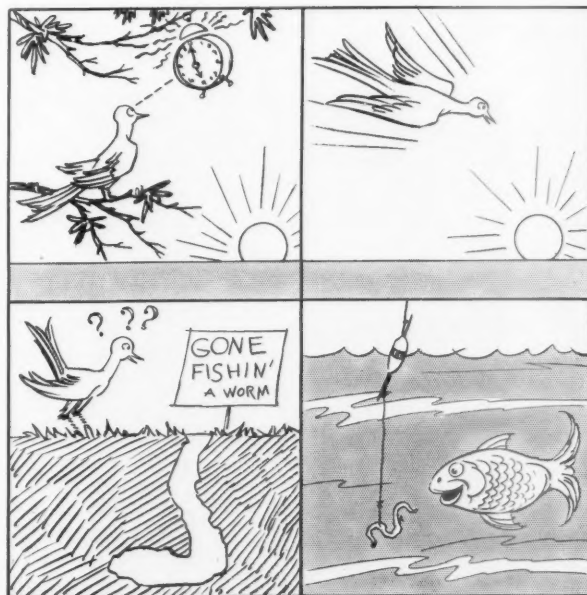
There are two kinds of fishermen: those who fish for sport and those who catch something.—*Life*.

Might Chirp!

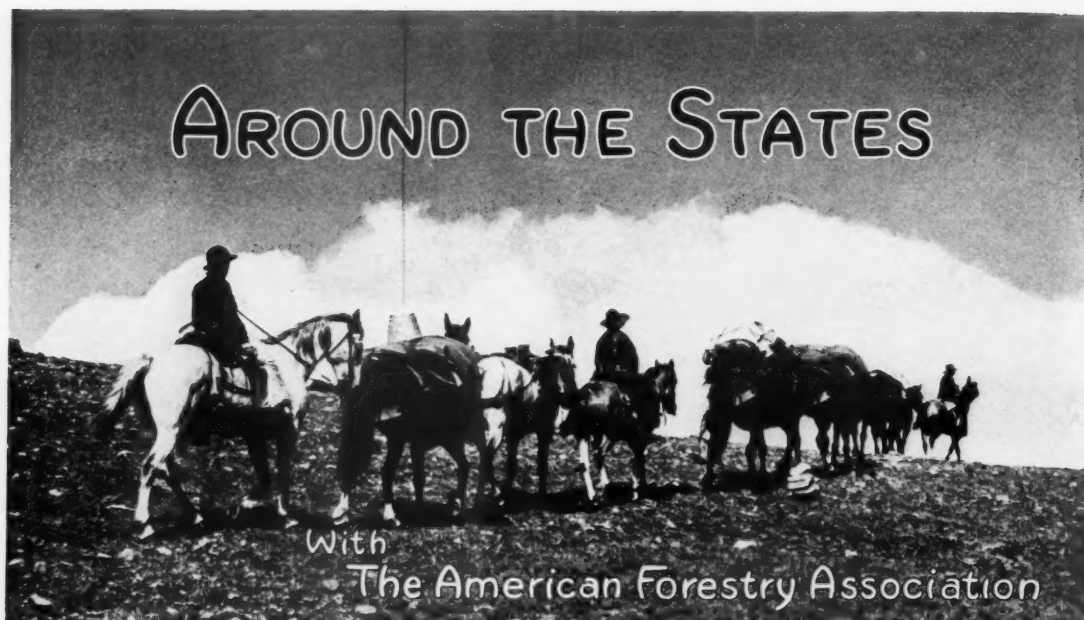
"And what if the engine stalls when we're away up in the clouds?" asked the young lady of the pilot as she was about to enter a flying machine for her first trip.
"Well, if that should happen," replied the pilot, "you just leap out, count ten and then pull the cord on your parachute."
"But what if it doesn't open up?" she asked anxiously.
"In that case the only logical thing to do is to flap your arms up and down and say 'I'm a bird—I'm a bird.'"—*Pathfinder*.

No Trouble

"Why are you fishing in that swamp? There aren't any fish there."
"That's the reason. I don't want to be bothered by them."—*Blue Ox*.



The Early Bird that Failed



Michigan Considers Forest Tax Law

A new forest tax law for Michigan was discussed in Lansing on the evening of April 7, during public hearings before the State Senate's Committee on Conservation. The bill, known as S. 72, introduced by Senator Herbert J. Rushton, of Escanaba, Michigan, would supersede the Pearson timberland tax act which passed several years ago and has failed to work effectively under Michigan conditions.

The Rushton bill offers the timberland owner an opportunity to list his lands as commercial forest reserves, and conserve the forest crop by selective cutting methods approved by the State Department of Conservation. In compensation for the timberland owner's efforts to conserve the forest and protect the land, the state will reduce the annual tax to ten cents an acre, and collect a yield tax of ten per cent of the stumpage value of all material harvested at the time of the cut. Realizing that such a plan may temporarily cripple the county and township governments, the state would annually pay each county ten cents an acre for the land so listed.

The bill has been described as the first practical attempt in Michigan to conserve the remaining forests and to encourage landowners to join the state in a progressive tree-growing program. John M. Bush, of Negaunee, declared that the "proposed act, faithfully and effectively administered, will be of great benefit to the Upper Peninsula." It has the endorsement of a large number of timberland owners as well as foresters in the state.

Franklin W. Reed Named Secretary of Society of American Foresters

Franklin W. Reed, of Washington, D. C., a forester of thirty years' experience in public and private forestry, has been named secretary of the Society of American Foresters, succeeding W. R. Hine, who retired late in March because of ill health. Mr. Reed assumed his new duties April 15.

In his new office, Mr. Reed will direct the active support of his organization to the activi-

ties of the Timber Conservation Board, appointed by President Hoover late in 1930 to analyze and interpret the important facts of production conditions and trends in the forest industries and recommend policies and programs of public and private action which may secure and maintain an economic balance between production and consumption of forest products. Another important activity which



Franklin W. Reed

he will carry out is the development of a forest policy for the nation. The Society of American Foresters has for more than a year been making a study of conditions and a recommended policy has just been placed before its members for discussion and acceptance.

Mr. Reed was graduated from Harvard University and the Biltmore Forest School and began his forestry work with the United States

Forest Service. For five years he was District Forester in charge of all of the National Forests in the East. In 1924 he became engaged in private forestry work—in the appraisal, promotion and sale of forest lands, and management of these lands on an industrial forestry basis. In April, 1928, he was named Industrial Forester for the National Lumber Manufacturers Association to carry out a study of the part the lumber industry is playing in industrial forestry.

Ask Changes in Lumber Tariff

Testimony that the lumber industry of the United States "is waging a life and death battle to maintain even a moderate consumption of its product" was presented before the Tariff Commission in its hearings recently by W. B. Greeley, former Chief of the United States Forest Service, now secretary of the West Coast Lumbermen's Association, who asked for the minimum increases permissible in soft wood lumber rates under the provisions of the 1930 Tariff Act.

J. D. McCormick, appearing for the Canadian Lumber Company and the Anacortes Lumber and Box Company, Anacortes, Washington, testified that there are little differences in production costs in British Columbia and the States of Washington and Oregon and asked the Commission that they not only recommend no increases over existing rates but see fit to make reductions.

Mr. Greeley, in testifying for an association representing 150 loggers, lumber manufacturers and manufacturers in the Pacific Northwest, stated that the association's membership represented forty-five per cent of the lumber produced in the so-called Douglas fir territory of the West Coast. Foreign competition by lumber manufacturers in the Pacific Northwest is primarily from Canada and particularly from British Columbia, Mr. Greeley declared. He said that in 1929 the total softwood imports into the United States were 1,418,000,000 board feet and that 95 per cent of the total came from Canada. In 1930 the imports were 1,146,000,000 feet of which 92 per cent came from Canada. British Columbia accounted for nearly fifty per cent.

New Forester for Porto Rico

William R. Barbour, recently assigned to take charge of forestry extension in the Virgin Islands, in cooperation with the Department of the Interior, has been appointed supervisor of the Luquillo National Forest in Porto Rico, according to the Forest Service. He will also continue to supervise forestry work in the Virgin Islands.

Mr. Barbour, who was formerly with the Forest Service in Alabama, has been employed in tropical forestry in the Caribbean region for several years. William P. Kramer, whom he succeeds, will return to the mainland and will become assistant supervisor of the Pisgah National Forest in North Carolina. While in the Virgin Islands recently, Mr. Barbour surveyed the possibilities for assisting the rehabilitation of the islands of St. John, St. Thomas, and St. Croix by means of forestry. The bay tree, basis of the bay rum industry, is one of the principal trees of the Virgin Islands.

In Porto Rico, Mr. Barbour will also serve as insular forester for the local Government. As insular forester he will have charge of large island forests along the coast and of the insular nurseries which are distributing more than one million trees annually to the farmers for planting. Enlargement of the Luquillo National Forest, now about 12,000 acres, was authorized recently, and additions will be made to the forest under the Clarke-McNary law.

Horace Kephart, Noted Outdoor Writer, Killed in North Carolina

Horace Kephart and Fiswoode Tarleton, both well known authors, were killed in an automobile accident at Bryson City, North Carolina, April 2.

Mr. Kephart, though a native of Pennsylvania, has made his home for many years in the southern Appalachian Mountains and has written extensively of the people and of the lore. He was among the pioneer advocates, both in his writings and civic activities, of the Great Smokies National Park. Many of his books deal with adventure, camp and outdoor life. *Our Southern Highlanders*, a recent volume, has attracted much attention.

Tarleton, a native of Georgia, has won recognition for his descriptions of the life of the Kentucky mountain people. *Bloody Ground*, a novel of Kentucky feud activities, was recently published by him.

New York Women Celebrate Conservation Week

Conservation Week in New York was observed in April by the New York State Women's Federation and the New York City Women's Federation Club under the direction of Mrs. Charles Cyrus Marshall, chairman of conservation of the latter organization. The observance was featured by addresses by Professor Frank B. Myers, of the New York State College of Forestry, on highway planting and roadside beautification, and by Dr. P. W. Zimmerman, of the Boyce Thompson Institute, who discussed propagation of holly and other plants. Horace M. Albright, director of the National Park Service, addressed the meeting on the appreciation of America's National Parks. Henry F. Prescott, conservation commissioner, spoke on reforestation in New York State. One of the highlights of the meeting was an indoor tree planting in memory of Stephen D. Mather, former director of the National Park Service.

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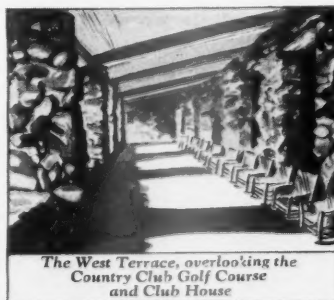


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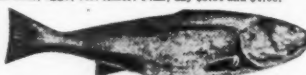
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Elk on Winter Refuge Attract Visitors

With the lightest snowfall on record for many years in Jackson Hole, Wyoming, the highway to Rock Springs and Kemmerer, Wyoming, is reported to have been open to travel the entire winter, and motorists from Wyoming, Idaho and Utah have been able for the first time to drive in their own cars to see the elk in their winter habitat on the Elk Refuge near Jackson. Reports to the Biological Survey, which maintains the elk refuge, say that in the first week of March the elk were in exceptionally good condition. They had not concentrated on the feeding grounds to take the hay ordinarily spread before them at this season, but were widely scattered and rustling for themselves on the mountains in the vicinity. The ground was reported bare in places but frozen to the depth of three feet. Absence of snow, it is feared, may lessen the irrigation water for the hay meadows later on.

To Enforce Control of Bass Shipments

Enforcement of the recently amended black-bass law to regulate interstate transportation of large and small-mouthed black bass, will be directed by Talbott Denmead, who was transferred to the Bureau of Fisheries from the Bureau of Biological Survey on March 24. Mr. Denmead, who becomes law-enforcement officer in a newly created division in the Bureau of Fisheries, has served ten years in enforcement of the Migratory-Bird Treaty and Lacey acts, particularly with those phases that are concerned with restrictions on illegal interstate commerce in game.

Buy Private Land in Zion Park

Continued success in eliminating private holdings within the exterior boundaries of National Parks has been announced by the National Park Service.

Arrangements have been made for securing 659,146 acres of land in Zion National Park, Utah, through the cooperation of President Carl R. Gray, of the Union Pacific Railway, who, on behalf of the Utah Parks Company, a subsidiary of the Union Pacific, agreed to donate \$20,000 toward making the purchase.

The lands in question are strategically located at the entrance to Zion National Park, and their acquisition was necessary for the future development of the park, it was stated.

American Game Association Moves

The American Game Association, of which Seth Gordon, former conservation director of the Isaak Walton League, is now president, has moved its offices from New York to Washington, D. C. The Association is located in the Investment Building, 15th and K Streets, N. W. Mr. Gordon announced the move was made to cooperate more effectively with all officials and organizations interested in conservation.

California Foresters and Wardens Meet

Fire control as a community problem, description of fire-fighters, and reforestation problems featured the second annual meeting of the Southern California Association of Foresters and Firewardens, held recently at Catalina Island. The chief speakers were S. R. Black, secretary of the California Forest Protective Association; M. B. Pratt, State Forester of California, and E. I. Kotok, director of the California Forest Experiment Station.

More Protection Asked on Alaskan Game Preserve

The Federal Government should safeguard the game preserves in the Mt. McKinley National Park in Alaska, according to testimony given by Horace M. Albright, Director of the National Park Service, before the Senate Reindeer Committee of March 9. Mr. Albright called attention to the deterioration of the pure stock of reindeer by the introduction of hybrids, and to encroachments on the wild game domain by migrating herds of reindeer. This menaces the food supply of wild game in the park area.

Leonard D. Baldwin, president of the Alaska Livestock and Packing Company, told Senator Kendrick of Wyoming, chairman of the committee, that all commercial reindeer interests welcome Government supervision over their dealings with the natives.

Commissioner General C. C. Moore, of the Land Office, presented statistics on fifty-two applications for reindeer grazing areas in the territory, thirty-three of which have been filed by natives and nineteen by others, six by the Lomen interests. He explained to the committee the law involved in issuing grazing permits.

Cramton Named for Special Legal Work in Interior Department

Louis C. Cramton, former member of Congress of Michigan, has been appointed special attorney to the Secretary of the Interior, Ray Lyman Wilbur, according to the department.



Louis C. Cramton

Mr. Cramton will have charge of the appraisal of land and the making of lease concessions for residential and business property at Boulder City, Nevada, the new town which is to be the home of the workers who will build Hoover Dam.

While in Congress, Mr. Cramton was chairman of the House Subcommittee on Appropriations for the Department.

Pennsylvania Pays Forest Fire Bills

Governor Pinchot recently signed a bill appropriating \$600,000 to the Department of Forests and Waters with which to pay forest fire extinction costs incurred during the past summer. The fire season was so unusually bad that the current appropriations were insufficient.

Nusbaum Appointed Archeologist

Jesse L. Nusbaum, for nine years superintendent of the Mesa Verde National Park, has been appointed consulting archeologist of the United States Department of the Interior. Under his new appointment Mr. Nusbaum will continue to carry on important research work in archeology within the Mesa Verde National Park, to study archeological problems in the National Monuments of the Southwest which contain prehistoric cliff dwellings and other pueblo ruins, and to furnish advice to the department regarding all other lands under its jurisdiction.

While in the Mesa Verde National Park, Mr. Nusbaum supervised the construction of unique buildings, harmonizing with the early Indian structures, the most outstanding being that of the park museum.



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Named Superintendent of Mesa Verde

Announcement of the appointment of C. Marshall Finnan as superintendent of Mesa Verde National Park, in Colorado, has been made by Secretary of the Interior. This action followed the reassignment of former Superintendent Jesse L. Nusbaum, who has been on leave of absence from the government in connection with the organization of the Museum of Anthropology at Santa Fe, New Mexico.

Mr. Finnan has served for six years in the park, beginning as park ranger and then becoming chief ranger. During the recent absence of Mr. Nusbaum, Mr. Finnan served as acting superintendent. Before entering the employ of the National Park Service at Mesa Verde, he had training in civil engineering, road and trail work, southwestern archeology, and botany.

Forest Officers Transferred

A. H. Sylvester, forest supervisor of the Wenatchee National Forest, Washington, since 1909, is to be granted retirement, at the age of sixty years, on May 25, according to the Forest Service. Gilbert D. Brown, supervisor of the Fremont National Forest, Oregon, will succeed Mr. Sylvester and assistant supervisor John F. Campbell, of the Deschutes National Forest, Oregon, will succeed Mr. Brown as supervisor of the Fremont.

Motor Fumes Harm Paris Trees

Paris, the city which claims to have the largest number of shade trees of any other capital in the world, has found the smoke and dirt and automobile fumes connected with urban life to be devastating to the healthful growth of its trees. The municipal council of the city has planned to replace every tree which has been seriously affected.

At present there are some 87,000 full-grown trees along the boulevards and avenues of Paris. It is estimated that 1,500,000 francs will be spent to replace some of these trees with hardier varieties.

Sound Pictures Now Being Made by Department of Agriculture

Production of sound pictures has been initiated by the United States Department of Agriculture in its own studio in Washington. A complete sound-on-film recording system has been installed by the department's Office of Motion Pictures and the work of scoring lecture pictures is going forward.

The recorder has been installed to run synchronously with projectors equipped for the projection of sound-on-film, so that it can be utilized for scoring existing silent pictures with sound effects or lectures, as well as for recording speech in synchrony with cinematography made by a camera interlocked with the recorder. The old projection room of the Office of Motion Pictures has been converted into a sound studio for scoring.

MEMORIAL DAY 1931

By M. S. Benedict



At peace—quietly they rest, the brave, the gallant, the Blue, the Gray—on sunlit hill, in verdant valley, their treasured dust at one with earth and elements.

Gone the mighty armies—dimming the countless sacrifice—fading the deeds of valour, but fused are they forever, fused in the soul of the race as essence divine—the essence of honor and glory leading onward the spirit of man—essence of courage, essence of life—imperishable as the Blue of limitless skies, as immeasurable as the Gray of windswept clouds beyond the sun.

Immortal are they, the brave, the gallant, the Blue, the Gray. Resting quietly there on hill, in dale, and here among the cedars of the Oregon, they live forever in the hearts of men.

Forest Service Adopts Measures for Roadside Beautification

As a means of fully promoting and accomplishing the conservation of the scenic, inspirational, educational and recreational qualities of the National Forest lands contiguous to highways and roads, the Forest Service has announced the adoption of the following measures:

All National Forest lands within 200 feet of the center line of a Class A or Class B highway, or within 100 feet of the center line of a Class C highway or road shall be administered with the major objective of conserving and augmenting the scenic, inspirational, educational and recreational values of said lands and roads. No form of occupancy or use of the lands or the products thereof shall be allowed except with the prior approval of the regional forester who, before granting such approval, shall require full assurance that the proposed occupancy or use is necessary, is appropriately safeguarded, and will not result in a sacrifice of public values or services greater than the public values or services to be derived from such occupancy or use.

While the proposal to acquire all timbered lands contiguous to highways by granting National Forest stumpage in exchange therefor is regarded by the Forest Service as impracticable, the acquisition of areas of privately-owned forest land, within the boundaries of the National Forests, for the purpose of conserving roadside beauty, will be accomplished as rapidly as such lands can be acquired through exchange with due regard to other requirements of public interest.

The detailed and systematic planning of the management and use of all National Forest lands tributary to Class A, B and C roads, including not only the 400 or 200 foot strips but also such other additional lands as may affect the public value of a given road, will be regarded as a definite and current administrative function of the Forest Service. This will be carried to consummation as rapidly as the available personnel, funds and other administrative obligations will permit. National Park approach roads will be given initial consideration.

An effort will be made to secure the approval of Congress to the employment of a limited technical personnel for the more intensive development of the scenic and recreational potentialities of the National Forests, in which major attention would be given to the relation of the highway and road system and its adaptation to the natural values involved.

Forestry Cup to be Contested Again

State foresters, forestry associations and all organizations interested in forestry have been urged to send posters, and other material for getting public support for fire prevention to the Annual Meeting of The American Forestry Association at Asheville, North Carolina, June 3, 4 and 5. This is the fourth consecutive year of the contest, and again public attention will be focused upon graphic ways of getting public support.

In 1928 and 1930 the cup was won by The Western Forestry and Conservation Association of Portland, Oregon, and in 1929 by the Forest Service of Mississippi. The contest now assumes the form of a challenge by E. T. Allen and his western organization. When that Association wins it again the cup will be their permanent property.

Posters, pamphlets, novelties, contests and all other methods of claiming public support against forest fires may be assembled and submitted for the contest. They will be displayed during the three days of the Annual Meeting, will be judged on the last day and the winner will be announced in the July issue of AMERICAN FORESTS.

ASK HIM

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Book News



and



Reviews

THE MECHANICAL PROPERTIES OF WOOD, by George A. Garrett. Published by John Wiley and Sons, Inc.; 276 pages; illustrated. Price \$3.50.

In this study Professor Garrett has carried forward the work of his colleague, Professor Samuel J. Record, of the Yale Forest School, whose original book of the same title is now out of print. A wealth of new material amplifies that which appeared in the earlier edition. This includes the silvicultural effects upon the strength and density of the resulting wood, the relative value of timber cut from live trees compared with that cut from dead trees, the loss in strength of structural timbers due to various allowable defects, and a number of other instances which record the growing knowledge of wood.

The book is designed primarily as a textbook for students, but the complete index, and the frequent use of subheads throughout the text, makes it valuable for mill men, architects, and all who use wood.—G. H. C.

"Trailside Actions and Reactions," by William H. Carr, published by The American Museum of Natural History, is an interesting presentation of the nature trails and trailside museum at Bear Mountain, New York.

"Dude Ranchers," published by the Pioneer Printing Company, Cheyenne, Wyoming.—Minutes of the Dude Ranchers meeting containing the basic information on this novel American industry.

"Suggestions for the Management of Spruce Stands in the Northeast," by Marinus Westveld. Circular No. 134, United States Department of Agriculture; 23 pages with illustrations; price 10 cents.—Mr. Westveld, silviculturist for the Northeastern Forest Experiment Station at Amherst, Massachusetts, discusses the results of his studies of red spruce in northern New England and New York. Recognizing that the paper industry has put heavy demands upon this species, the conclusions are naturally drawn with regard to that industry. The author states that with the application of intelligent forest management sufficient spruce and fir can be grown to supply the entire needs of this populous region.

OUTDOOR HERITAGE, by Harold Child Bryant. Powell Publishing Company; 465 pages; illustrated. Price \$5.

California, land of beauty, health and happiness—trees heavily laden with ripe, luscious fruits—flowers that vie with the rainbow in their wild profusion of color. This is the picture of California presented in this unusual book. But it is not all, for the author takes us step by step through the state from the beginning of its history to the present time. Along the path he tells of the underlying sorrow of the pioneer days and the struggle to gain an entrance through the Golden Gate. Outlay of land, present-day culture, trees, finny favorites, playgrounds and recreation are only some of the subjects Mr. Bryant covers. It is a book to intrigue and to inform.—P. V. G.

Timberland owners will make money if they will make a careful inventory of their standing timber or logs and sell them as individual parts according to species and size, rather than everything in one lot, according to Henry B. Steer, senior forest economist with the United States Forest Service. This is reported in Department of Agriculture Statistical Bulletin No. 32, entitled "Stumpage and Log Prices for the Calendar Year 1928," which was published in March, 1931.

"Comparative Strength Properties of Woods Grown in the United States," by L. J. Markwardt. Technical Bulletin No. 158-T, United States Department of Agriculture.—This bulletin identifies woods suitable for specific purposes and helps the layman to compare the strength of different species of wood. Information concerning strength is reduced to a few properties—bending strength, stiffness, hardness, and shock resistance—expressed in simple figures for the 164 native species that have been tested. Weight and shrinkage of different woods, and a table of working stresses for structural material recommended by the Forest Products Laboratory and conforming to American Lumber Standards have been covered.

TAMA JIM, by Earley Vernon Wilcox. Published by the Stratford Company, Boston, Massachusetts; 196 pages. Price \$2.

Dr. Wilcox has written an intimate appreciation of his friend and former chief, James Wilson, who for sixteen years was Secretary of Agriculture. It is to a considerable extent a history of the Department of Agriculture during the formative period from 1897 to 1913. This carried through the administrations of Presidents McKinley, Roosevelt and Taft. It witnessed the transfer of the National Forests from the Department of the Interior to the Department of Agriculture, and the creation of the Forest Service.

Dr. Wilcox gives greatest stress to the human characteristics of the vigorous Scotchman whose personality was projected through the State of Iowa to the then struggling Department of Agriculture, and thence to the entire United States. Some idea of the man is given in the following quotation from Gifford Pinchot, now Governor of Pennsylvania, who served under him as Forester.

"James Wilson did more for me than any other man on earth. For twelve years I had the greatest time of my life. Wilson gave me carte blanche in devising a forest policy, choosing assistants and carrying on forest investigations of all kinds. He backed me up in every sense and applied a good part of the driving force behind my efforts. I have forgotten the unfortunate mix-up just at the end of my connection with the department and treasure only the pleasant memories of my long and close association with Tama Jim."

That Tama Jim loved trees and was among the first to urge the Forest Service to undertake a great forest-planting program is well known among many of the older foresters. Dr. Wilcox makes no mention of this, but he quotes at length from a letter which he once wrote to a

superintendent of education in Des Moines as to the meaning of Arbor Day.

"The observance of a tree planting anniversary should be attended with memories as sweet as the anniversary of the baby's birthday. The school should be remembered and improvements made to its plantings. The home should be remembered and improvements made on its lawn. Animals should be remembered and windbreaks set out that they may have better protection from the cold weather of fall and spring. The birds should be remembered and trees planted where they may find sanctuaries from their enemies and nesting places for their families to the end that the insect world may be kept in check.

"The young should plant trees in recognition of the obligations they owe to those who planted trees for them. The old should plant trees to illustrate their hope for the future and their concern for those who come after them. The economist should plant trees, especially in the prairie country, to beautify the landscape and ameliorate the sweep of the north wind. And as we plant trees on Arbor Day a kindred feeling to that experienced on the Fourth of July should possess us. For the time being, we are one in mind, we are one people, engaged in something to do good to mankind."

These are only a few instances picked out of the life of a man who devoted most of his time to national problems of producing live stock and annual crops. With it all Tama Jim recognized the importance of trees, and the responsibility of the Department of Agriculture for the administration of the nation's forests.

Dr. Wilcox has given us at once a picture of a vital, likeable man, and record of the growth of a great government department.—G. H. C.

"Strength and Structure of Four North American Woods," by J. E. Myer, of the National Lumber Manufacturers Association—issued by the New York State College of

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1727 K Street, Northwest, Washington, D. C.

(Further information upon request)

Forestry at Syracuse University.—The four woods considered are white pine, hemlock, maple and white oak. Dr. Myer found that the coarsest textured wood in white pine and hemlock was at sixteen feet from the stump and became rapidly finer toward the stump.

WINTER CRYSTALS AND OTHER MARVELS. Compiled by Jane Dudley. The Eagle Press, Whitinsville, Massachusetts. 127 pages, price \$5.00.

This little volume—extracts from the writers of two centuries, was designed for quite young students but it will interest and delight older folks as well. There are four sections, devoted to Snowflakes, Window Frost, Clouds and Dew-drops, and the cloud studies and microscopic enlargements of some of nature's most fragile manifestations are exquisite.—L. M. C.

"Local Bird Refuges," Farmers' Bulletin No. 1644, by W. L. McAtee, Bureau of Biological Survey, United States Department of Agriculture.—Describes the best methods of attracting birds, with special reference to local bird refuges on farms, in farm woodlands, along roadsides, in municipal parks, fairgrounds and watersheds, in school and college grounds, in cemeteries, and on golf courses. It is adapted for use throughout the United States.

AMERICAN ALPINES IN THE GARDEN, by Anderson McCully. Published by the MacMillan Company, 60 Fifth Avenue, New York City; 251 pages; illustrated. Price \$2.50.

The author introduces a new field of gardening and gives the benefit of her actual experience and knowledge, supplemented by practical facts, in the gathering, cultivation and care of the dainty western alpine and other mountain wildlings. She tells where the sprightly cottongrass, the azure-blue gentians, delicate yellow violets, purple asters, and countless other beautiful mountain flowers may be found and how they may be successfully transferred from their native haunts to a natural-like habitat.

The varying conditions under which these American mountain flowers grow and something of their history is given to enable the planter intelligently to meet their natural requirements. Simple directions for the construction of the rock and water garden and the preparation of the moraine which makes possible the cultivation of many plants that would otherwise be unknown in a lowland garden, are given, and the necessary fundamentals for adequate drainage and the question of sufficient light are also considered.

Mrs. McCully has presented a phase of gardening which is both unique and practical and one that will be appreciated by those interested in making unusual gardens.—D. H.

"Bird-Houses, How to Make and Where to Place Them," by E. J. Sawyer, Bulletin No. 1 of the Cranbrook Institute of Science, Bloomfield Hills, Michigan, March, 1931; 27 pages with numerous drawings; price 20 cents.—An effort to adapt the birds' principles of construction to artificial bird-houses. Houses and nesting places for a variety of birds are described and attractively illustrated with line drawings.

Minnesota Scoutmaster Gets American Forestry Association Medal

Scoutmaster A. M. Kingsbury, in charge of Troop 38 of the Highland Park Evangelical Lutheran Church, in St. Paul, Minnesota, recently received The American Forestry Association medal for that state. Mr. Kingsbury and the Scouts of Troop 38 were credited with having done outstanding work in conservation during 1930. The troop aided the St. Paul Park Board in charting the shade trees over a large portion of the residence section of the city, conducted a tree census of the city, distributed over 2,000 packages of pine seed, together with instructions for planting them, to the school children of the city, prepared an unusual collection of fire-prevention posters, and submitted a report of their work which was outstanding for excellence and neatness.

The judges gave second place to Troop 121, of Crystal Bay, Minnesota, and third place to Troop 10, of Winona, Minnesota. William Kelly is Scoutmaster of Troop 121, and V. A. Lynn, of Troop 10. The Crystal Bay Troop have a six-acre forest tract and assisted the State Forest Service in fire prevention during the past year. The Winona Troop of Boy Scouts have worked in the Winona City nursery, carried on forest planting, helped thin stands of young timber, and actively fought forest fires along the Mississippi River bluffs.

The large American Forestry Association plaque mounted on black walnut has been inscribed and presented to Troop 38. It will remain with them until the 1931 contest is completed, when it will be again inscribed and presented to the new winner. It will go from troop to troop in Minnesota until one troop has won it three times.

The judges of the contest for 1930 were Alfred Nelson, of the Minnesota Forest Service; Kenneth Bentz, assistant director of Boy Scouts of America for Minnesota, and Mrs. J. D. Winter, of the Outdoor Life Club of St. Paul.

Shorten Wild Fowl Season

Regulations increasing the protection of migratory birds, recommended recently by the Biological Survey will affect hunters in all parts of the United States. President Hoover, on March 17, approved amendments to the migratory bird regulations adopted by Secretary of Agriculture Hyde to carry out the recommendations. The chief amendment that affects all parts of the country is one that shortens the open seasons fifteen days on ducks, geese (including brant), coots, and jacksnipe. Hereafter, the seasons on these birds will start fifteen days later in the northern parts of the country and close fifteen days earlier in the South. One effect of this amendment will be to prohibit the shooting of ducks, geese (including brant), coots, and jacksnipe in September in any state. The shortened seasons are prescribed because of the increased natural hazards the birds are experiencing in reduced breeding, feeding, and resting areas, brought about in part as a result of unprecedented drought the last two seasons.

A further amendment of general effect regulates the hour at which hunters can begin shooting on the opening day of the season in each locality. It will be illegal to hunt migratory game birds before noon on the opening day.

Other general provisions are concerned with decoys, baiting, and bag limits. Not more than ten live goose decoys may hereafter be used or shot over at any one gunning stand, blind, or floating device. Baiting for mourning doves with salt or with wheat or other grains will not be permitted, and it is illegal to take these birds on or over areas so baited. The bag limits on those geese for which open seasons are provided are changed by including brant with geese and limiting the total of all to four a day and eight in possession.

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Forest Highway Funds Apportioned

Allocation of \$9,500,000 in forest highway funds to be expended in thirty-three states and territories in the fiscal year 1932 has been announced by the Forest Service. The amount is the same as that available for the current fiscal year, which in point of highway construction on the National Forests is to set a new record. The 1931 program is being rushed to aid in relief of unemployment, as well as to open up National Forest areas and to facilitate protection of forests and watersheds against fires.

Louisiana and Wisconsin will share for the first time in the forest highway apportionment. The funds are used in the states having National Forest lands within their boundaries and are apportioned on a basis of acreage and value of these forests. Construction and maintenance of forest highways is handled by the Bureau of Public Roads.

The highway-building program for the National Forests was more than doubled for the current year, Congress having added \$5,000,000 to the amount appropriated annually in recent years. Reports from many communities indicate that road building in the National Forests is proving helpful in relieving unemployment.

The forest highways are first-class roads, generally linking up with state highway systems. In the fiscal year ending June 30, 1931, the Forest Service is also expending \$3,000,000 on forest development roads and trails within the National Forests. This is an annual expenditure in the long-time program of development and forest protection.

Apportionment by states of forest highway funds for the fiscal year 1932 is as follows:

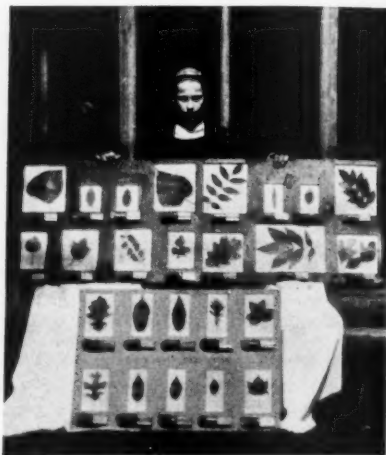
Alabama, \$7,990; Alaska, \$945,548; Arizona, \$593,906; Arkansas, \$92,244; California, \$1,432,765; Colorado, \$678,697; Florida, \$32,769; Georgia, \$19,385; Idaho, \$1,045,437; Illinois, \$826; Louisiana, \$764; Maine, \$2,889; Michigan, \$17,680; Minnesota, \$64,333; Montana, \$819,893; Nebraska, \$9,821; Nevada, \$187,008; New Hampshire, \$45,608; New Mexico, \$415,539; North Carolina, \$28,060; Oklahoma, \$3,628; Oregon, \$1,344,741; Pennsylvania, \$18,553; Porto Rico, \$1,127; South Carolina, \$3,376; South Dakota, \$79,984; Tennessee, \$25,724; Utah, \$338,185; Virginia, \$32,371; Washington, \$739,295; West Virginia, \$15,739; Wisconsin, \$6,281; Wyoming, \$449,844.

Forest Research in North Dakota

The legislature of the State of North Dakota has appropriated \$5,000 a year for the next two years with which the State may cooperate with the Federal Government in furthering the forest investigations to be conducted in the Turtle Mountains and the northern part of the State under the auspices of the Lake States Experiment Station. This money will be added to the \$15,000 included in the Federal appropriation for the fiscal year beginning July 1, 1931.

Michigan Farm Boy Wins Medal

Walter Jacob, a fifteen-year-old member of the Raisin River Ranger Station, of Manchester, Michigan, has been awarded The American Forestry Association Medal for outstanding work in connection with the 4-H Forestry Club activities of that state. He con-



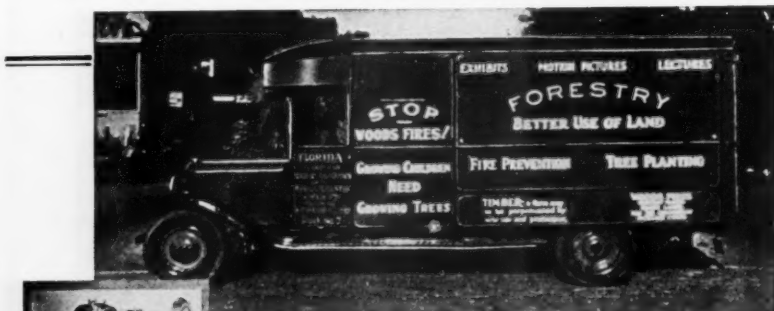
Walter Jacob, Medal Winner

ducted a woodlot survey covering a large portion of his home township and mapped the area. In connection with his tree studies he collected and mounted typical leaf and wood specimens of twenty-five native trees which he showed at fairs in Manchester and Detroit, and planted an acre to forest-tree seedlings. He has won the Scout merit badge in forestry and bird study. He has also collected and mounted a large collection of wild flowers, with their fruit, and a considerable collection of forest tree seeds.

Railroads Aid Birds in Missouri

Three railroad companies, the Kansas City Southern, the Missouri, Kansas & Texas and the Missouri Pacific, operating in Missouri have designated their thousands of acres of right-of-way as game and bird sanctuaries. Provision has been made that all natural food and cover be saved, and trainmen are ordered to help distribute food during the winter, according to the Missouri Game and Fish Department.

It is estimated that thousands of bushels of valuable bird seed will be preserved when the customary practice of burning over or mowing the rights-of-way is discontinued. Shelters and inviolate nesting grounds for the birds will be provided along fence rows. Food scattered by trainmen during the snowy season will also save the birds that would otherwise starve because of a shortage of natural food this year.



THE ACME PROJECTOR PROMOTES FORESTRY

To broaden the scope of its educational work, The American Forestry Association has assembled a fleet of fully equipped trucks with which to tour the country. The Acme Portable Projector is an important part of this equipment.

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\$650,000,000 for Highway Construction

Thirty-eight states will expend more than \$650,000,000 during the current year for the construction of state highways, according to the Department of Commerce.

This includes only that part of the complete highway construction and maintenance program which is actually paid for by the states, says the Department, and continues: "Wherever highway construction previously planned and authorized for a later period can be pushed forward into the present, such action by the states combined with similar action by municipalities and the Federal Government will take up a good deal of the slack of unemployment—and will create much additional employment in many related fields of industry."

Park Association Honors Dolan

Bronx Park Commissioner Thomas J. Dolan was elected honorary president of the Park and Forestry Association of Bronx County, New York, at its fourth annual meeting, held early in April. A scrolled parchment and gold medallion, tokens of the bestowal of the title, were presented to the Commissioner by Daniel P. Sullivan, president of the Association.

Tree Planters' School in New York

On April 2, W. G. Howard, superintendent of Lands and Forests of the New York State Department of Conservation, told members of Cornell's Second Annual Tree Planters' School at Ithaca, New York, of the state's plan for county reforestation programs. These have been under way for more than ten years in such counties as Otsego, Herkimer, Cortland and Tompkins. County Forester A. J. Collins, of Buffalo, told of Erie county's plan for tree planting, and Professor G. F. Warren, of the Department of Agricultural Economics and Farm Management at Cornell, discussed New York's idle land problem. More than fifty men from various parts of the state attended.

First U. S. Experimental Forest

Establishment of the Gale River Experimental Forest, west of Mt. Washington, the highest peak in New England, is announced by the Forest Service. This tract is within the White Mountain National Forest, in New Hampshire, and is the first experimental forest to be officially established under the new regulation, by which the Forest Service is to designate primitive, natural and experimental areas representative of the various forest regions of the United States.

The Gale River Experimental Forest includes approximately 1,320 acres. The area lies between two state automobile highways, making the tract readily accessible for research. Although it is only now being formally set aside for research work, investigations have been under way since July, 1927. The Northeastern Forest Experiment Station, at Amherst, Massachusetts, plans to develop this area very rapidly within the next few years, placing within it much of its permanent sample plot work.

Adirondack Largest Public Park

Governor Roosevelt has signed a bill which extends the Adirondack Park to a total of 4,604,000 acres, making it the largest public park in the United States. All the state-owned land within the park areas is forest-preserve land and is forever protected against timber cutting and continually guarded by the state's forest fire fighting organization.

Indiana Extends Forest Protection

By recent action of the legislature of Indiana the State Department of Conservation may spend funds of the Forestry Division for organized prevention, detection, control and suppression of forest fires. Under authority of this law State Forester R. F. Wilcox expects to establish at least three new fire-protection units during the coming summer. The law applies to waste land reverting to forest growth, as well as to forest and woodland.

Pine Associations Merge

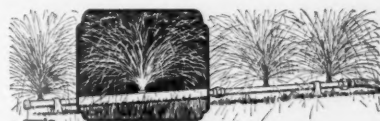
One of the outstanding announcements at the sixteenth annual conference of the Southern Pine Association, at New Orleans, was that the North Carolina Pine Association had voted to merge with the Southern Pine Association. The board of directors of the latter body have accepted the proposal and it was announced that a branch office of the Southern Pine Association will be maintained at Norfolk, Virginia, in charge of G. L. Hume, former secretary-treasurer of the North Carolina Pine Association. More than five hundred lumbermen attended the New Orleans meeting.

Wisconsin Increases Reforestation Area

The Wisconsin Conservation Commission has accepted an additional 139,355 acres to be placed under the forest crop law. This brings the area administered under this law to 420,000 acres in twenty-seven counties. Under the forest crop law property is not subject to tax until the timber is cut.

Georgia Association to Meet

The annual meeting of the Georgia Forestry Association will be held at Albany, Georgia, May 20 and 21, 1931, it has been announced. This was decided on at a recent meeting of the executive committee of the Association, which was called in Atlanta by T. G. Woolford, president, and C. B. Harman, chairman of the executive committee.



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A few years back, I took a two weeks' auto ride through New England. Its purpose was to run down all the famed trees under which La Fayette was reputed to have orated when he came back in 1825. Also those to which Washington tied his horse. So far as I could discover, La Fayette slighted only one tree. That one is the largest in New England. A magnificent elm, some 6 miles or so south of Hartford. Nobody seems to

know why he gave so imposing and commanding a veteran the go-by. One thing certain, if Washington were to tie up to it now, the halter would have to be at least 25 feet long. That's how huge its circumference is. Which fact starts reminding me of the elms down here in our 300-acre nursery. They look mighty good to us. Reckon they will also look just that good to you. Admittedly, some are for sale. A passing comment worth your remembering.

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Ruth A. Quinan, of San Francisco, tree lover and one of our best member-boosters on the West Coast, writes enthusiastically:

"As soon as I can steal a few moments from the office, I am going to have some good photographs taken of my trees to illustrate what can be done with a sand lot in the midst of a large city. I was interested in reading an account of Abraham Lincoln's love for trees, and incidentally noted that he named his pet trees. This has been my custom and, as an ardent admirer of Abraham Lincoln, I took pride in learning that he had the same love of trees as I have. 'Tahoe,' growing by the window of my living room, near an open fireplace, is now about thirty feet tall. This tree I raised from a little pine nut taken from a pine cone from the Sierra Mountains—started it at my office in a flower pot and transplanted it to my own garden.

"I trust that some day I shall be in a better position to be of substantial assistance. In the meantime, you have my good wishes and such support as I can give."

MR. O. C. SIMONDS, of De Land, Florida, makes the following interesting comment:

"It gives one a feeling of great satisfaction to read an article like C. G. Bates' 'Chaining the Father of Waters.' One can only wish that he had gone further and emphasized the value of forest growth about the headwaters of all the tributaries of the Mississippi. Perhaps some time Mr. Bates will give us another article on preserving or reestablishing such growth.

"One illustration of the value of a thick growth came to my attention some time ago. It was in Iowa where a small stream drained a valley two or three miles in length and of proportional width. This stream brought hundreds of cubic yards of earth from its upper stretches and distributed them along its lower flat borders and into the larger stream into which it flowed. I walked the entire length of the crooked stream to see if I could discover where the load it carried came from. To my surprise, not very much of it came from the bordering fields, most of which were pasture land. The cornfields were comparatively flat with grass along the margins, which caught part—but not all—of the wash. The great

bulk of the material carried down came from the stream's gouging into its banks. These varied from only a foot or two to many feet in height.

"The bends of the stream were becoming deeper and at times of freshet, many feet of the bank would be undermined and washed away. There was one place, however, where the stream turned a sharp angle but had been unable to eat into the bank because willows had been planted all along and formed an effective protection."

"In memory of the fact that my husband's grandfather, Henry Marie Brackenridge, was the first forester appointed by the United States Government, I enclose my check for subscription," writes Mrs. H. M. Brackenridge, of Brackenridge, Pennsylvania.

Mrs. Brackenridge may well pride herself on such an antecedent, for her letter recalls the interesting fact that it was that soldier of fortune, Henry Marie Brackenridge, who was appointed in 1828 by President John Quincy Adams—sixth President of the United States and known as the "tree-planting Mr. Adams"—to plant and protect on the Island of Santa Rosa, jutting into the Bay of Pensacola, a live-oak experimental plantation, believed to be the first national effort in America at reforestation and forest management. The fascinating story of "President Adams' Acorns"—the inception of this effort, its life and eventual abandonment and decay was written by Jenks Cameron and published in this magazine during 1928.

From Mercy Hospital, conducted by the Sisters of St. Joseph, at Parsons, Kansas, Sister Mary Gabriel writes:

"Your valuable magazine was received very thankfully. How wonderful the article 'The Sleep of Creation' is and how healing to the tired nerves to read it! Not only once do I intend to read it but often. In 'Shillelagh' you must have been divinely inspired. It came home to me as a long-lost friend, especially since I am a descendant of the Geraldine race, kin with the Geraldines of Florence and boasting of descent from Eneas, the Trojan hero."

The Little Birthday Tree

By Alice Pettus Hall

When I was just a tiny baby—one day old—
My Daddy planted out a little tree
For me,
Which grew and grew, but Daddy never told
Me it was *mine* 'til I was one
Year old—just toddling—when he said,
"Come, Dear, and see a present I have got



For you,
It's one that doesn't have to
be fed
Like kittens, dogs, and bun-
nies; for you see
It lives on sunshine, rain,
and air,
And these are free."

And then I saw my darling little tree
(And laughed to see it nod
Its green head at me!)
And Daddy said: "It's yours—your very
own—
And will be when it's grown;
But you must always be
Good to your tree; its useful wood
May some day help to build a home
To shelter you."

And then I *knew*
How Daddy loved me
Since he gave to me
This wonderful, this useful
Little tree,
Which nodded its green head
As if to say:
"Good day, good day. Come, let's play,
I'll always be your friend
If you'll be friends with me."

And then I kissed and hugged
My Daddy, knowing that he
Couldn't have given me *anything*
I liked so well
As my darling little tree!
And I have been
Good to my tree, remembering
That some day when it's big
The birds will sing
And build within its branches
And I can bring
All of my friends to rest



Within its shade
When play has made
Them tired; *goodness me!*
Look how my tree
Has celebrated OUR fifth
birthday
Say!
It's outgrown me!

Western Forest Management Conference

The Western Forestry and Conservation Association at its annual forest management conference in Spokane, Washington, late in March, featured a protection-equipment show with examples of fire-fighting tools, pumps, hose and fittings, telephone equipment, crew outfits, tractors, plows and drags. This was the most complete display of forest-protection equipment ever assembled. During the meetings David T. Mason discussed the trend of forestry as industrially practiced; W. B. Osborne, of the Forest Service, presented a paper on protection equipment; E. H. Bowie of the United States Weather Bureau, discussed the weather conditions of the past and the possibilities of considerable fire hazards in the future, while Dr. Wilson Compton, Secretary of the National Lumber Manufacturers Association, presented a paper on idle lands.

Camps for War Give Peace to Wild Life

Camps where millions of men trained for war may soon furnish peace and protection to game birds and animals. The first step in this direction, taken recently when Major General Dennis Nolan created a game sanctuary of 13,000 acres at Camp Knox, near Louisville, Kentucky, has been followed by concerted appeals from nearly every state game commission and many sportsmen's organizations for similar measures at all the other military reservations existing in numerous states, according to the American Game Association.

A meeting of leading conservationists to prepare a plan to submit to President Hoover and the War Department has been urged.

"If all military reservations were made permanent game sanctuaries by a general order from the Secretary of War, the whole country would reap benefit at no cost to the Government," the association pointed out. "Sportsmen's groups everywhere would welcome the chance to turn these large areas, acquired for training troops in time of war, into inviolate game refuges. Such a general order would be in line with the work already being done by the Federal Government in preserving wild-life resources."

The reservations would become game reservoirs replenishing the depleted wild life in surrounding sections and insuring game stock for all time.

Park Program Proposed in New Jersey

Expenditure of \$7,500,000 over a period of ten years for a state park and forest acquisition program is proposed by the State Board of Conservation and Development in a plan submitted to the state legislature. For the coming fiscal year the sum of \$730,000 has been recommended. The board declared that the unrestricted use of wilderness areas for outdoor recreation is rapidly passing. The time is close at hand when public reservations will offer the only opportunity for recreation and for that reason the state should act energetically and promptly.

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	2-1	12
White Pine.....	3-0	4
	3-1	12
Red Pine.....	4-0	6

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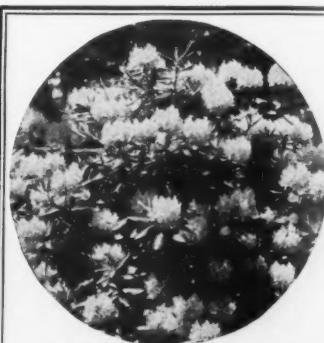
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NOTHING is more beautiful than the glorious spring blooms of Rhododendrons and Azaleas—modest white, soft orchid pink to orange yellows. Our nursery-grown native Rhododendrons can come to you at very reasonable prices. Catalog on request.

Special offer for \$25 includes 12 plants, 1 to 3 feet high, ten different, enough to cover 25 to 40 sq. feet. The blooms are from white to orange, April to July—a wondrous series of blossoms.

La Bars' broad-leaved evergreens call for no maintenance expense. Cold will not kill them. They blend with all forms of architecture. Our nursery-grown stock conserves native forests.

Price for this superior collection only \$25, packed, f. o. b. Stroudsburg. Please send check with order.

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IN times of financial depression and unemployment, widowed mothers and orphaned children are first to suffer—and silently, they suffer most. Thousands of them today need help—money help—for food and clothing and creature comforts.

It is for them that we ask your help this Mothers' Day. Whatever your mother would do for a sick neighbor or hungry child, do in her name for unemployed and destitute mothers and children who lack the comforts and necessities of life.

The Golden Rule Mothers' Fund will be distributed through the most efficient agencies where the need is most acute.

Give for mothers—for their children—the gift that will make them happiest.

IN HONOR OF MOTHER—HELP OTHER MOTHERS

To The Golden Rule Mothers' Fund Committee
Lincoln Building, 60 East 42nd Street
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I hereby subscribe Dollars
to the GOLDEN RULE MOTHERS' FUND, to be applied
by the Committee where most needed, unless specifically
designated below.

Signed

Address

This gift is to be recorded in the name of

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MAKE CHECKS PAYABLE TO THE GOLDEN RULE FOUNDATION
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A "Golden Rule" Mothers' Day

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By
THE AMERICAN FORESTRY ASSOCIATION

Forest Planting Pictured Step by Step

A four-page folder giving, by word and picture, the proper methods of handling forest plantings. Send stamped addressed envelope for your copy.

The American Forestry
Association

1727 K St. N. W. Washington, D. C.

Mather Parkway in Rainier Forest

The work of the late Stephen T. Mather, former director of the National Park Service, is to be commemorated in a striking way by the Mather Memorial Parkway authorized recently by order of Secretary of Agriculture Arthur M. Hyde.

Stretching through the Rainier National Forest, Washington, a distance of nearly fifty miles and extending approximately one-half mile on either side of the Naches Pass Highway, the Mather Memorial Parkway comprises 24,300 acres of forest land in which outstanding scenic and inspirational quality is combined with timber and land values of economic importance. The highway, when completed this year, will provide a new entrance to the Puget Sound region from the Yakima Valley and the East.

Since the Parkway area largely is free from commercial development it affords an unusual opportunity for planned coordination of uses so that the economic needs of the dependent populations can be met without a sacrifice of esthetic values. To this end, the field officers of the United States Forest Service, in cooperation with interested local agencies, have formulated detailed plans for the use and management of all lands within the limits of the parkway under which the scenic and recreational qualities of the lands will be carefully safeguarded as they are developed.

The classification order signed by Secretary Hyde provides that although the timber, watershed, power and forage resources will be subject to limited utilization, no economic uses will be permitted to impair the recreational features and the scenic beauty of the highway surroundings. Public and municipal camps, health resorts, and summer homes will be permitted for the comfort and convenience of the people using the area for recreational purposes, but will be planned and arranged so that they will not diminish the natural beauty of the highway.

Forest Chief's Ashes Scattered on Pines That He Loved

The story of how an employee of the Forest Service carried his love for the trees he lived with and protected to his grave is destined to become one of the epics of the Federal Service.

Instead of committing the remains of E. C. Shepard, forest supervisor at the Boise National Forest in Idaho, to the conventional grave, his associate scattered his ashes in the great pine forest where he labored.

This unique funeral was the occasion of a touching ceremony, according to a description of the event just received at the Forest Service.

Plant a White Birch

"Most beautiful
Of forest trees—the Lady of the Woods."
—Coleridge.

THE white birch—nature's woodland masterpiece—delicate strings swept with beauty—the harpist's harmony of the green woods. As Marcus Woodward beautifully writes: "At all seasons . . . she is charming—in summer, when the little triangular leaves, so light in the mass, wave like green tresses; in autumn, when turned to yellow, and in winter, when the sun touches the silver stem, and she displays all the delicacy of the tracery of the drooping sprays. Perhaps it is especially in winter, when the denizens of the woods have denuded themselves, like the goddesses before Paris on Mount Ida, that the symmetry, the whiteness and the queenly figure are brought out in their incomparable perfection."

George Meredith, too, spoke of the birch as the "dainty rogue in porcelain"—humanizing, in an utterly feminine way, this lovely tree. "See the silvery birch in a breeze; here it swells, there it scatters and is puffed to a round and it streams like a pennon, and now gives the glimpse and shine of the white stem's line within, now hurries over it, denying that it was visible, with a chatter along the sweeping folds, which still the white peeps through." And Scott, that incomparable singer, saw the feminine qualities of the tree when he wrote,

"Where weeps the birch with silver bark,
And long, disheveled hair."

"Lovely white birch—Mothers' Tree"—nationally adopted as a tribute to motherhood, and eminently fitted for the honor. Called by a loved poet the Lady of the Woods—artists and lovers of natural beauty have singled it out and around it have built their most beautiful creations.

Plant, then, a white birch on May 10th—to honor on Mothers' Day this year some lovely woman—your own mother or some mother who has touched your life closely, or who expresses for you the qualities of that mother you never knew.

Plant it—they will grow most everywhere—and watch it develop in beauty as the years increase—as the stem grows whiter. Let your little ones know what it means and that it is dedicated to her who is the very center of their existence. Let them watch and care for it during the first few years of its life. Plant it *now*, so that they may grow up with it and that in their young hearts the seed of the love of trees may find lodgment, later to be harvested in a rich crop of understanding. So then shall the love of forests—great communities of green trees—down, and comprehension take hold in these young minds which are destined to guide the future of American forests.





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The greatest trio of flowers for the June garden. Send \$1.50 for 25 fine named Irises from my exceptional collection of 500 named sorts. My catalogue lists in addition 125 of the world's finest Peonies and the largest collection of named, strikingly gorgeous, Oriental poppies offered in this country.

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NATIVES—Three Varieties

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The American Forestry Association

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Forest Associations Aided

Financial aid amounting to \$3,000 was given to private forest protective associations in Pennsylvania during 1930, according to the Pennsylvania Department of Forests and Waters. Those receiving this cooperation were: Anthracite Forest Protective Association which received \$2,000; Pocono Forest Protection Association, \$126; and the McKean County Protective Association, \$129. These associations, says the department, have done much to foster forestry in Pennsylvania and to build up a spirit of cooperation and interest in the welfare of forests in that state.

Hugh Baker on Research Council

Dean Hugh P. Baker, of the New York State College of Forestry, at Syracuse, New York, has been appointed a member of the Northeastern Forest Research Council for a term of four years by Secretary of Agriculture Arthur M. Hyde. The council is a body that advises with the director of the Northeastern Forest Experiment Station at Amherst, Massachusetts, on forest research problems. This station covers the territory of the New England States and New York.

Second Phase of Survey Under Way

The second phase of the nation-wide Forest Survey has been inaugurated with the initiation of preliminary work in the hardwood bottomlands of the Mississippi Delta. C. M. Granger, director of the Forest Survey, and James W. Girard, logging engineer for the survey, will assist in the preparation of working plans. This work will be under the immediate direction of G. H. Lentz, silviculturist at the Southern Forest Experiment Station.

Lentz was transferred December 1 from his work on soil erosion to take over the hardwood survey. He will be assisted by J. A. Putnam who is an experienced hardwood operator and timber estimator. J. A. Cruikshank, a junior forester, will also be on the survey.

Alaskan Girls Win Association Medals

Elsa Lundell, an eighth-grade pupil in the public schools of Douglas, Alaska, and Hazel Verney, of Metlakatla, Alaska, are the winners for their respective divisions of The American Forestry Association medal in Alaska. Their essays dealt with the forests in reference to the great northwest. Each of these girls is a student in the territorial schools.

Enlarge New York State Hatcheries

Fish hatcheries of New York State are to be enlarged in 1931 to accommodate the addition of thousands of fish fry, according to the New York State Conservation Department. The state hatcheries will not only be able to rear many more fish but will be equipped to keep them in the hatcheries until they attain a larger size. This is due, says the department, to a new policy put into effect concerning the purchase of fish food which will now be bought through the State Purchase Department on open bidding transaction which, so far, indicates a probable saving of twenty per cent. This will be employed in taking care of the food demand to be caused by enlargement and improvement in the hatcheries.

When Writing Advertisers—Mention AMERICAN FORESTS

Billboard Investigation Sought

The New Hampshire House of Representatives has adopted a resolution asking Governor John G. Winant to appoint a recess commission to study the subject of licensing, fixing and regulating billboards. The commission would make its report to the 1933 legislature.

Georgia Makes Record Planting

Approximately 4,000,000 forest tree seedlings were planted in Georgia during the past spring, according to State Forester B. M. Lufburrow. Over 2,000,000 of these were grown in the state nursery at Athens. A part of the funds for the operation of this nursery are obtained from the Federal Government through the Clarke-McNary Act, and the seedlings are sold to private landowners at cost. Long leaf pine and slash pine are more in demand than all other kinds of trees.

Georgia's reforestation program fits with her campaign for organized protection against forest fires. On nearly 2,000,000 acres where fire protection is now provided, natural reforestation is rapidly progressing.

Research Program Conference

The needs for extending a forest survey to eastern Oregon and Washington, for an expansion of fire control studies, for erosion-streamflow studies in relation to forest and range management, and for a study of range management in hitherto unused ranges in central Oregon, were among the new projects discussed at the annual meeting of the Regional Investigative Committee of the Forest Service at Portland, Oregon, March 3 and 4. This group represents National Forest administrative officers, research men, and representatives of bureaus other than the Forest Service working on forest problems.

Herbert Goes to Michigan State

Paul A. Herbert has accepted the position of Professor of Forestry at Michigan State College, East Lansing Michigan. He succeeds the late Professor Alfred K. Chittenden, who died on November 1, 1930. Professor Herbert served on the forestry staff at Michigan State College under Professor Chittenden during 1925 and 1926. In 1926 he resigned to go with the Forest Tax Study of the Forest Service as Senior Forest Economist. Professor Herbert graduated from Cornell University, receiving the degree of B. S. in 1921, and M. F. in 1922. He is author of several studies on forest taxation and forest insurance.

Paper Association Reelects Willson

At the fifty-fourth annual convention of the American Paper and Pulp Association, S. L. Willson, of the American Writing Paper Company, Incorporated, was re-elected president for his third term. Other officers elected were: vice-presidents, George H. Mead, Mead Corporation, and W. L. Carter, Nashua Gummed and Coated Paper Company; executive committee, George W. Houk, Hawley Pulp and Paper Company; D. C. Everest, Marathon Paper Mills Company; Henry D. Schmidt, Schmidt and Ault Paper Company; A. R. Graustein, International Paper Company; Norman W. Wilson, Hammermill Paper Company, and David Luke, Jr., West Virginia Pulp and Paper Company.

Ask the Forester?

Each Month Forestry Questions Submitted to the Association Will Be Answered in This Column. If an Immediate Reply is Desired a Self-Addressed, Stamped Envelope Should Accompany Letter.

QUESTION: We should appreciate very much your advising us where we may obtain six Washington elms.—*C. F. I., Ohio.*

ANSWER: Assuming that the inquiry referred to the famous Washington Elm which stood in Cambridge, Massachusetts, it was sent to the Arnold Arboretum at Jamaica Plain, Massachusetts. They were unable to find any concern possessing grafted plants of this particular American elm. The reply went further and stated that while the tree was undoubtedly propagated "any plants procured now under that name are open to question since the tree possessed no peculiarities which would differentiate it distinctly from others of the same species."

QUESTION: What can I do to protect my white pine trees from a little woolly insect?—*C. P. F., Pennsylvania.*

ANSWER: This is probably the pine bark or woolly aphid. It gets its name because it is hidden beneath a mass of white, cottony secretions, which occur in greatest abundance on the trunk and larger branches of the tree. They appear in the latter part of April or in May, and produce several generations during the summer season. Pines attacked by this aphid become sickly and the needles turn brown, but as a rule only small trees die as a result of the infection. Methods of control recommended follow: Spray the tree with a kerosene emulsion diluted with nine parts of water, or with one part of nicotine sulphate to 500 parts of water. Occasionally water from a garden hose under high pressure, or even brushing off the insects with a stiff brush proves effective.

QUESTION: Does the Association's magazine, *AMERICAN FORESTS*, have a circulation outside the United States?—*J. B., Maryland.*

ANSWER: *AMERICAN FORESTS* not only has a circulation in every state in the Union but in four possessions of the United States, in Canada, and in thirty-nine foreign countries.

QUESTION: Please explain clearly for the benefit of those not connected with the forest industries, the meaning of the terms "stumpage" and "stumpage values."—*F. W. R., Washington, D. C.*

ANSWER: The commonly accepted meaning of "stumpage" is standing timber. Frequently the term refers to the value of the timber as it stands uncut in the woods, but this latter meaning is more specifically "stumpage value." It is necessary to know the amount of timber on a given tract before one can figure its "stumpage value." "Stumpage value" should not be confused with "lumber value," for the latter involves "stumpage value" in combination with logging and milling costs together with all other charges which occur from the time the trees are cut to the time when they are placed on the market as boards.

QUESTION: Are there any states which have set aside timber preserves or state parks by means of state legislation? If there are, please list them for me and if possible give some general indication of the average acreage of such tracts.—*M. L. R., D. C.*

ANSWER: State forests ranging in area from fifty acres to over two million acres and totaling nearly seven million acres have been established in Connecticut, Delaware, Georgia, Indiana, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Montana, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, South Carolina, Texas, Vermont, Virginia, Washington, West Virginia, and Wisconsin. In addition, Hawaii and Porto Rico own 1,170,000 acres. The six leading states in point of acreage are: New York, 2,216,775 acres; Pennsylvania, 1,427,090 acres; Washington, 1,112,289 acres; Montana, 566,000 acres; Michigan, 500,000 acres; Minnesota, 420,000 acres.

Twenty-nine states have over 500,000 acres in state parks. North Dakota has about 60,000 acres in the Custer State Park, the largest state park in the Union. Some of the other states having state parks are: New York, 140,000 acres; Wisconsin, 60,000 acres; Minnesota, 38,279 acres; Missouri, 35,155 acres; Ohio, 32,233 acres; Michigan, 25,000 acres.

QUESTION: What is the authority under which state forestry departments carry on their nurseries for providing trees for reforestation? Are there any provisions which limit the distribution of such state nursery-grown trees to specific purposes?—*L. C. C., D. C.*

ANSWER: Each state has its own enabling act creating a forestry department with power to cooperate with the United States Department of Agriculture in maintaining nurseries and in other activities. Federal authority is found under Section 4 of the Clarke-McNary law (Act of June 7, 1924). During the present year \$93,000 was appropriated and the appropriation bill for next fiscal year carries \$95,000. The Federal allotments to the states must be matched by equal funds from the states. The Forest Service reports that during 1928 the state forestry departments under the provisions of this section of the bill distributed 28,757,448 trees, and 25,242,697 trees in 1929. The total number of trees planted from all sources—Federal, state and private—was 68,565,291 in 1928, and 67,722,001 in 1929.

The state foresters are doing everything in their power to assure that trees secured under this clause will be used only for purposes of reforestation. The Clarke-McNary law specifies that the trees are "for the purpose of establishing windbreaks, shelter belts and farm woodlots upon denuded and nonforested land—and growing timber thereon."

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RIGHT from start to finish.

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Audubon Bird Cards

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Reverse side of each card carries an account of the habits and distribution of each bird. Prepared under the supervision of Dr. Frank M. Chapman.

Set No. 1—Fifty Winter Birds of Eastern North America

Set No. 2—Fifty Spring Birds of Eastern North America

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\$1.00 per set, postpaid

THE AMERICAN FORESTRY ASSOCIATION

1727 K St. N. W. Washington, D. C.



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See also page 300

Use of Blighted Chestnut Urged

Blight-killed chestnut trees are well suited to manufacture of shipping containers, and the lower grades are recommended for this use by the Forest Products Laboratory of the Forest Service, at Madison, Wisconsin. The laboratory has also prepared information on use of this wood for core stock in furniture manufacture.

There is a tendency to shift from the use of chestnut in anticipation of an eventual shortage, say the forest scientists. As a result much valuable wood is being allowed to rot in the forests.

"The pole and pile market has been largely closed to blight-killed material by the clause found in many specifications requiring that such products be cut from live trees," says a laboratory report. "To meet this situation it has been suggested that a clause prohibiting decay and limiting insect damage replace the live-tree requirement. Producers object to a clause prohibiting all decay. Undoubtedly some material containing decay in certain places will make good poles. Data for determining how much and where decay is permissible, however, is lacking and safety requirements make it necessary at this time to recommend only sound material."

National Forests in Michigan

The Ottawa and Marquette National Forests in Michigan have just been established by a proclamation issued by President Hoover. Within the Marquette, with a gross area of 275,988 acres, the United States owns or is in process of acquiring 109,223 acres, says the Department of Agriculture, and adds that less progress has been made in the Ottawa, where out of a gross area of 252,551 acres only 53,379 acres has passed or is in process of passing to the Federal Government.

As a result of these two new acquisitions in Michigan, the United States now has a series of three National Forests extending across the Upper Peninsula of Michigan—the Hiawatha, Marquette and the Ottawa.

Foresters Participate in Nut Tree Planting Project

The response made by federal, state, and private organizations to an invitation to participation in the National Nut Tree Planting Project sent out by G. H. Collingwood, forester of The American Forestry Association, who acts as secretary-treasurer of this conservation program, has led the Council in charge to make optimistic prophecies regarding the success of the five-year project.

W. C. Howard, superintendent of Lands and Forests of New York, and H. O. Cook, chief forester of the Massachusetts Department of Conservation, have already sent to the headquarters of the project lists of historic grounds in their states, on which nut trees can be found. F. W. Besley, state forester of Maryland, who raised in state nurseries the Mount Vernon walnut tree descendants contributed to the George Washington Bicentennial tree planting program by the National Nut Tree Planting Project, is among the foresters who says that he will furnish names of grounds known in American history in order that Boy Scouts may comb them for nuts next fall.

The state forester of Connecticut, A. F. Hawes, has offered space in four nurseries for the propagation of seedlings from historic seeds. Fred B. Merrill, Mississippi state forester, not only is permitting state nurseries to be used for the nuts from famous grounds, but is conducting a contest to locate sources. W.

S. Taber, Delaware forester, has also offered a similar two-fold service.

Louis Taber, master of the National Grange, has written enthusiastically saying, "I shall be glad to render any service that I can in the National Nut Tree Planting Project, as I believe it is a splendid idea both from the standpoint of sentiment and from economics. Any service that the Grange can render in this regard will be cheerfully given, and assure you of our continued interest in this type of work."

By a formal vote, the Board of Directors of the Washington Chamber of Commerce recorded its hearty endorsement of the "fine undertaking," according to Dorsey W. Hyde, Jr., secretary. Others who have evidenced interest in the project which has for its goal the perpetuation of America's native nut trees by the planting of nuts from historic grounds include R. F. Wilcox, Indiana state forester; C. A. Whittle, director of education of the Georgia Forest Service; H. S. Newins, West Virginia forester; Lyle Brown, and E. L. Scovell, extension foresters of Alabama and of New Jersey; R. M. Hutchinson, University of Maine forestry specialist; E. W. Tinker, Lake States regional forester; John H. Foster, New Hampshire state forester, and K. E. Barroclough, extension forester of that State, and the Wyoming extension forester and horticulturist, W. O. Edmondson.

Aviation and Forestry

Aviation is fast being adapted to the many uses for which it is fitted, according to Frank M. Richardson, associate editor of the *Southern Lumber Journal*. "Included in this list and of particular interest to many in the Southeast," he said in a recent radio address, "as well as many other sections of the country, are the determining of areas for reforestation, fire patrol over timbered tracts, forest surveys for proper economic management and aerial photography and sketching for mapping purposes."

"In selecting areas for reforestation," he said, "tracts are more easily located from the air than by any other method. In doing this work for the purpose of forest management, the factors of survey by photograph or sketching on a line map are included. An aerial photograph shows one hundred per cent detail and is exactly to scale. Drainage, slopes and condition of the growth on the area can be fully determined at a glance."

"Two concrete examples of aviation being used for this purpose may be found in the mapping by photograph of 66,000 acres of timberland near Myrtle Beach, South Carolina, and the sketching on a line map of some 60,000 acres in Putnam County, Florida. In the case of the latter, the flight over the timber was made at 12,000 feet and the entire job of sketching the 60,000 acres was completed in less than two hours flying time."

Air mapping has revolutionized the old methods, he states. "When a firm desires to acquire a tract of land containing timber it wants to know where the various species are located, how thick the growth is and where the most advantageous points may be found for logging, location of the mill and transportation. The ground cruiser at best can only make an estimate. Nowadays an aerial survey reveals conditions from which a reliable working knowledge may be obtained."

An Unexpected Guest

While riding along a highway on the way to turkey hunting grounds, two hunters in Thomasville, Georgia, were startled when a deer jumped over a fence along the road and into their car. It leaped into the back seat, they said, but apparently changed its mind and hopped right out again.

Careless Smokers Connecticut's Chief Cause of Forest Fires

Careless smokers continued to be the greatest menace to the forests of Connecticut during 1930, according to recent figures compiled by State Forester Austin F. Hawes in cooperation with the United States Forest Service. Of a total of 1,367 forest fires in the state, 555 were caused by careless smokers. They burned 28,870 acres as against 55,866 acres burned from all sources, and were responsible for practically half of the estimated damage of \$374,166.

Further study of the state forester's statement shows that merchantable forest growth to the value of \$99,050 was destroyed, together with \$131,148 worth of young growth not yet large enough to be merchantable. Most of the fires occurred during the middle of the day during March, April and May.

To guard against future forest fires smokers are urged to use special care in disposing of their lighted matches, cigarette stubs and pipe ashes, and property owners should keep the strip along the highway free from debris.

Area of Privately Protected Land in Indiana Grows

A total of 56,547 acres of privately owned Indiana forest land have been classified under the state tax law of 1921, according to recent figures submitted by State Forester R. F. Wilcox. During the six months ending March 1, 1931, there were 12,917 acres classified by 164 owners. This land is set aside definitely for timber production, and is therefore protected from fire and from the grazing of livestock. In return for protection and care the state permits the owner to pay a tax upon the appraised value of only one dollar an acre. No yield taxes, cutting rules, or other restrictions are imposed.

District of Columbia Planting Thirty-five Miles of Trees

Twelve miles of the proposed thirty-five miles of trees have been set out this spring in the District of Columbia. The remainder will be in the ground by the end of May, according to Clifford Lanham, superintendent of District Trees and Parking Division.

In all 3,300 trees will be planted throughout the city this spring. It was stated that all of Washington's 110,000 trees will be in a healthy condition for the Washington Bicentennial Celebration in 1932.

With Ohio Garden Clubs

Charles F. Irish, president of the Charles F. Irish Company, Cleveland, has been appointed tree specialist for the Ohio Association of Garden Clubs. The Ohio Association is composed of eighty-three active garden clubs and is devoted to increasing the interest in, and the knowledge of, gardening. Mr. Irish, author of numerous articles on arboriculture, will serve in the capacity of adviser and counselor for the association on all matters pertaining to trees.

California Asks "Second Line of Defense"

Creation of a "second line of defense" for the protection of California's fields and forests has been proposed in the state legisla-

ture. Under this measure the state forester is empowered to appoint in any city or county he may desire, public-spirited citizens to serve as volunteer fire wardens. Such persons will serve without pay from the counties or private sources. They will have full power as peace officers to arrest without warrant any person found violating the state, county or Federal fire laws.

Under another bill introduced, the "closed season" for burning slash and other inflammable material will be from April 15 to December 1, instead of from May 1 to October 31. During this period no burning will be allowed except by permission of the local forest ranger. The law would make violation of this act a misdemeanor.

A third bill introduced provides that violators of state fire laws may be "tagged" to appear in court, the same as traffic-law violators. This would permit the state forester, assistant forester, fire ranger or fire warden to permit the person arrested to sign a written promise to appear in court at a specified time, not more than thirty days after the arrest.

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Kansas to Plant State "Mothers' Tree"

ON May 10, Council Grove, Kansas, will plant the state Mothers' Tree, a white birch, along the old Santa Fe Trail near the Council Oak. Under the branches of this tree, commissioners appointed by President John Quincy Adams held a council with the Indians and entered into a treaty for a trail through their territory from the west border line of Missouri to Santa Fe. By this treaty the Santa Fe Trail was officially established. Council Grove received its name from the tree, the "Council Oak."

At each state planting there is a silent visitor playing an important part. It is the spade presented to The American Forestry Association by the City of Reading, Pennsylvania, after the initial planting eight years ago at Lake Antie-

tam, and used each year since at similar ceremonies on Mothers' Day. While but an ordinary garden spade, it has traveled to all parts of the United States and will continue to do so. A request from a foreign country to have it sent to be used to plant its national Mothers' Tree had to be refused for it is assigned for the next few years at state and national plantings in America. A shield on its handle states that Solan Parkes, who conceived the idea of the Mothers' Tree, used it for the planting of the initial tree at Reading, which was dedicated to his mother. In 1928 the spade was used to plant the Mothers' Memory Tree at the grave of Mary Washington at Fredericksburg, Virginia. In 1929 California used it and in 1930 Texas, in planting at San Antonio the Texas State Mothers' Tree.

THE HOOTING OF THE BLUE GROUSE

(Continued from page 265)

mainly on the needles of the conifers. So in reality he hoots where he makes his home just as the pinnated grouse struts in the meadow or the ruffed grouse drums in the thickets.

It is a fair day for the bird lover when he manages to get a good view of a hooter in action. It is almost a miracle to get within camera range. To photograph him in his high tree top is almost impossible, but occasionally he takes his stand in a burn or old slashing where good hooting trees are not at hand, and there he may be seen—if the photographer is born under a lucky star.

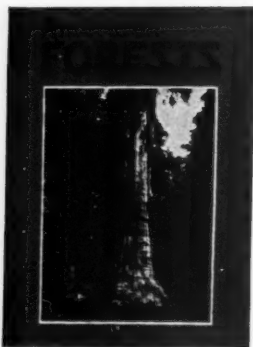
If two or more cocks are occupying the same neighborhood, each has a particular section which is regarded as his own. Evidently there is intense rivalry between these Romeos. All through the day and through much of the night the cocks keep up their measured hooting, sending out their calls at frequent and regular intervals. One bird answers the other in challenging reply, and hour after hour the woods ring with the strange melody. What may sound like a call and its tardy echo is

really the challenge of two cocks, each calling from his particular quarter.

When the mysterious notes are followed to their source in the burns, the bird is found perched on a log or stump. So intent is he now on his occupation that a visitor may approach reasonably close. The first glimpse suggests a grotesque, inflated appearance. If annoyed or frightened, he slowly subsides and takes a more normal pose; but on being assured, he begins to inflate again. The air-sacks of his neck, a golden amber-brown, gradually fill and he puffs out tremendously. The feathers surrounding the neck-sacks rise on end, disclosing their snow-white bases in an irregular rosette that gleams from the shadows. His brow glows crimson. His head is drawn back, his tail spread and elevated a few degrees, and his wings are drooped. Soon he turns his beak slightly downward, opens it a trifle and gives his weird song: "O-omp! Oomp! Oomp! Oomp! Br-omp!" It is always a five-note effort. As his body vibrates to each booming note, his great tail beats slightly up and down,

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in perfect rhythm, as though he were beating the score. There is little difference now between his hooting pose and his silent pose. He holds himself inflated even during his short struts, deflating only when alarmed. Hour after hour he sits in the shade and persistently measures out his strange mysterious music.

The cock never leaves his own little kingdom, holding it against all comers. The hen always comes to him, stealing away from the hidden nest in the evening. That these grouse are mated in the staunch manner of most birds is to be doubted. Everything goes to show that they are promiscuous of mating habit and nothing points to this more clearly than the in-

tense hooting rivalry of the males. They must advertise themselves or lose the game and so at the height of their amorous excitement through April and May they scarcely take time for either food or sleep and may be heard at any hour. The hooting begins in March and is carried on feverishly right into midsummer or even later, till the last shred of hope of finding a responsive mate is gone.

Every region has its own peculiar bird notes or calls that are regarded as concomitants of the spring. To the coastal westerner, the booming of the hooter is as typically a spring note as the warble of the robin.

A PAGE FOR BOYS AND GIRLS

(Continued from page 286)

I do the same thing once in a while, Floyd. Sitting under one of these trees, that somehow escaped the logger's ax, one can view the many silent stump speeches that make the most eloquent pleas for reforestation.

On the campus of the University of Wisconsin is a knoll which has been officially set aside by the Board of Regents of the university as "The 4-H Club Knoll." Each year in June the farm boys and girls who gather at the College of Agriculture for a short period of instruction and inspiration plant a tree with impressive ceremony, designed to send the delegates back to their homes imbued with a purpose to beautify with trees and to perpetuate their woodlots by wise use. At a corner of the area a large rugged rock will be placed

with low growing junipers framing it, and on it will be chiseled an inscription, telling all who pass that here boys and girls are aroused to a sense of the value of trees.

The two-hundredth anniversary of the birth of George Washington will be celebrated this year and in 1932 all over our country by the planting of trees. School and town authorities could do no better than set aside an area on schoolgrounds or in community parks where the children of the locality may go each year to dedicate anew their loyalty to a great benefactor of mankind—trees. I have a number of tree planting ceremonies, gathered from here and there, and will send copies to anyone sending requests to The American Forestry Association.

PIONEERS IN FORESTRY AT BILTMORE

(Continued from page 272)

sity for the quick conversion of unsightly gullies into forested slopes and neglected roadsides into byways of enchantment. For the windows of the lordly chateau must look toward beauty and charm. Forest planting being the logical means to this end, Schenck put in young trees very closely spaced, usually mixing hardwoods with pines. He believed that by planting in this way he would be sure of a fair percentage of survival. He also set out hardwoods on those areas from which they had been burned or cut.

As he struggled against the unknown factors of soil, site and climate, and the depredations of rodents, it seemed to him that the hardwoods would never overtop the sedge grass and he frankly admitted that more than once he "got scared" for his reputation. Along parts of the 200 miles of macadam road there are now strips of beautiful planting placed there to conceal the undeveloped fields, as well as to test the desirability of the species for permanent forest production. Almost all of the reforestation work on the estate was done under Dr. Schenck's direction, although after he left Mr. Beadle successfully added Norway spruce and some other species. Many of the plantations have names suggestive of the earlier uses of the land—Old Orchard, Apiary, Ferry Farm, Old Schoolhouse, Farmcote.

Unique in every particular was the "Forest Festival" held by Dr. Schenck during the Thanksgiving season of 1908. The results of twelve years of endeavor were then visible and it was possible to make deductions bearing on future reforestation problems.

The guest list included eighty or more representatives of the faculties of forest schools and related institutions, state and national foresters, lumbermen, and others prominent in public affairs. Quartered at the Battery Park Hotel, the guests spent three days in trips, driving out from Asheville and going from

plantation to plantation, where lively and illuminating lectures were delivered by their host. On one hillside young trees were laid out and the visitors were invited to try their hands at planting. All who ever followed Dr. Schenck through the woods agree that it was somewhat of an endurance test, but stiff muscles appeared to be no drawback to evenings of feasting and fun.

Forestry as a financial investment for the private owner is still the subject of much discussion. In view of the problems of taxation, cost of artificial reforestation and other economic and silvicultural considerations, Mr. Vanderbilt decided that he was not justified in continuing the employment of a resident forester and abandoned the hope of making the forest pay its way. In 1909 Dr. Schenck left the estate and devoted his entire time to the forest school which he had established eleven years before. With the exception of the thinning experiments carried on by the Appalachian Forest Experiment Station on specially designated plots, no silvicultural operations are now conducted on the forest.

Forty growing seasons have passed over the white pines of the Douglas plantation and today they stand like pillars in a great cathedral, with long shafts of sunlight slanting against their massive dark trunks. The glory of autumn blazes in the maples and poplars outlined against the distant mountains and the snows of winter cling to the drooping branches of the Carolina hemlock massed along the sides of the Approach Road. But at no time is the place more alluring than when the wistfulness of spring casts its spell and the white lace of dogwood blossoms is flung into the dark firs and the shaded green of opening buds. The deep coves glow with flaming azalea and the kalmia below the Overlook Road spreads its magic carpet of coral pink. In the forest there is youth eternal.

National Forest Timber For Sale

The development of additional lumber-producing large units of industry is not being encouraged at this time by large offerings of National Forest timber. Offerings are being made when and where needed to stabilize industries and communities dependent on the National Forests for their raw material; or to prevent loss to the United States through deterioration, through the prospective removal of transportation facilities, or from other causes; or to encourage, in the United States, the production of commodities now extensively imported. The advertisement, for a period of at least thirty days, of all sales of more than \$500 in stumpage value is a requirement of law. Large sales are advertised for periods in excess of the minimum legal requirement, to give time for the examination of the timber and for the study of the sample contract and conditions of sale.

Applications for the purchase of National Forest timber should be made to the Supervisor of the National Forest on which the timber is located, or to the Regional Forester for the National Forest Region concerned. The Regional Foresters are located as follows: For Montana and northern Idaho, Missoula, Mont.; for Colorado, South Dakota and Wyoming east of the Continental Divide, Denver, Colo.; for Arizona and New Mexico, Albuquerque, New Mexico; for Utah, Nevada, southern Idaho, Wyoming west of the Continental Divide and Arizona north of the Colorado River, Ogden, Utah; for California, San Francisco, California; for Washington and Oregon, Portland, Oregon; for Alaska, Juneau, Alaska; for Minnesota, Michigan and Wisconsin, Milwaukee, Wisconsin; and for Arkansas, Florida, the Appalachian states, Pennsylvania, and New Hampshire, Washington, D. C.

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"WHO'S WHO" AMONG OUR AUTHORS

RAPHAEL ZON (*The New Public Domain*), renowned forest research authority, is director of the Lakes States Forest Experiment Station, at St. Paul, Minnesota, and professor of forestry at the University of Minnesota. Born in Russia, Mr. Zon studied at the Imperial University, at Kazan, before receiving his degree at Cornell University. He has served the United States Government for thirty years.



Raphael Zon

JOSEPHINE LAXTON (*Pioneers in Forestry at Biltmore*) has been a member of the staff of the Appalachian Forest Experiment Station at Asheville, North Carolina, since its organization in 1921. She is a North Carolinian and much interested in the development of forestry in the South. She will continue her interesting story of forestry pioneers at Biltmore in the June issue.

WAKELIN MCNEEL (*A Forest Page for Boys and Girls*) is assistant State Club Leader of Wisconsin, making his home at Madison. In this issue he continues his highly interesting department for boys and girls. He invites any boy or girl in the country to correspond with him on matters pertaining to the forests and the outdoors. Mr. McNeel founded the Junior Forest Ranger Club movement in his State.



Haydn S. Pearson

has written for a number of newspapers and magazines.

NELSON C. BROWN (*Governor Roosevelt's Forest*) is professor in charge of forest utilization, New York State College of Forestry, where he has taught since 1921. At the present time he is on leave, serving one year with the U. S. Tariff Commission. Mr. Brown was appointed special adviser to the Czechoslovak Republic on management of Crown forests in December, 1919, and served with the United States Trade Commission in Europe for two years. After receiving his B. A. and M. F. de-



Nelson C. Brown

grees from Yale he became associated with the United States Forest Service, serving from 1908 to 1911. He has written extensively about forest products.

HAMILTON M. LAING (*The Hooting of the Blue Grouse*) is given over, he says, to the fascinating problems of biology—a hunter, naturalist, photographer, writer and field collector. For the past nine years he has done field work for the Canadian National Museum. At the present time he is nature guide in the Jasper National Park, Canada.



Hamilton M. Laing

Fritz Skagway (*The Care of Fishing Tackle*), a native of northern Michigan, says he lives only to visit his log cabin on the shores of Guthrie Lake near the place of his birth, making occasional forays into Alaska, British Columbia and the Arctic to fish and hunt. At his home near Detroit he maintains a feeding station for improvident quail, bluejays and woodpeckers, the while he writes on wild life subjects.



Fritz Skagway

F. W. KELSEY (*Magical Bermuda*) is the president and founder of the Kelsey Nursery Service, New York City.

FRED H. KISER (*Through the Lens*) continues his interesting series on outdoor photography. A lover of mountains, valleys, lakes and streams, Mr. Kiser has thirty-three years of photographic experience behind him. He was the first in the United States to portray mountains in hand-colored-in-oil photographs for quantity production. At one time he was authorized photographer for Crater Lake National Park, and official photographer for the Great Northern Railway. His entire collection of photographs, colored in oil and made in this region, have been exhibited before Congress.

EARL C. O'ROKE (*What Price Fishing*) is assistant professor of Forest Zoology, School of Forestry and Conservation, University of Michigan. A native of Kansas, he is a graduate of the University of Kansas and the University of California. Before taking up his present work, Mr. O'ROKE was associated with the California Division of Fish and Game.



Earl C. O'Roke

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